THE

SOUTHERN AGRICULTURIST.

NOVEMBER, 1837.

PART I.

ORIGINAL COMMUNICATIONS.

The Plantation-Doctor.

Mr. Editor,—The planter, of all others, should be acquainted with medicinal remedies, to cure those diseases and injuries to which his negroes, from their occupations, are so frequently liable. Situated most generally, far from the residence of a physician, he has in nine cases out of ten to rely on his own judgment, and unless he can do so with some color of success, death may ensue before a doctor can arrive. Laboring under this disadvantage myself, I determined to make out a synopsis of those accidents and sudden affections, which are most common to country life, and the proper treatment of them. I have drawn largely from books to complete the plan; and have asserted nothing, which is not either by the authority of others, or drawn from my own experience. The plan may be useful to some of your readers, particularly to those, who cannot refer to books, and with proper diffidence I send it to you for publication.

PART I.—POISONS.

Poisons operate differently. The mineral (as arsenic and corrosive mercury) seems to attack the solid parts of the stomach, and produce death by eroding: antimonials seem rather to attack the nerves, and kill by throwing the whole system into convulsions; and the vegetable seem to act in the same way. Whether vegetable or mineral,

they require *an immediate evacuation* or a *counteraction* of their effects. To accomplish this, quick emetics must be administered, or some neutralizing medicine, internal, or external in its operation. To vomit the patient, he may be given tartar emetic, hippo, white or blue vitriol, with copious draughts of warm water—if these be not at hand, mustard and warm water will do, or any thing that will vomit the patient quickly.

ACIDS.—For oil of vitriol, aqua fortis, spirits of sea salt, oxalic acid—mix an ounce of calcined magnesia in a pint of water, and give a glassful every two minutes; if not at hand, use flax-seed or cotton-seed tea, rice-water, gruel, or water alone, in large quantities, until the magnesia can be procured; if it cannot be procured, dissolve an ounce of soap in a pint of water, and take a glassful every two minutes; chalk or whiting may also be taken by the mouth, and clysters of milk be frequently injected. If the patient will not vomit, put him in the warm bath, bleed him freely, and apply leeches and blisters over the parts pained. If the cramps and convulsions continue, give him a cup of common tea, with an ounce of sugar, and 15 or 20 drops of laudanum, every quarter of an hour. No nourishment but sweetened rice or gruel, arrow-root or sago, is to be taken for several days. *In these cases never give tartar emetic*, (so it is said)—give hippo, or tickle the throat with a feather.

ALKALIES.—For caustic potash, caustic soda, and volatile alkali—take two table-spoonsful of vinegar or lime juice, in a glass of water at once; follow it up by drinking large quantities of sugar and water. *Pursue the same treatment as in poisons from acids.*

ARSENIC.—Give large quantities of cold sugar and water, with hippo, until plentiful vomiting—then barley, rice-water, milk, &c. should be employed. *Oil is never used until the symptoms have considerably abated, or the poison has been ejected.* The whites of 12 or 15 eggs beaten up with two pints of cold water, and a glassful given every two or three minutes, with hippo, so as to vomit. In defect of eggs, milk and mucilagenous drinks, with hippo, may be used. Another, is a drink of equal parts of lime water, and sugar and water.

COPPER.—The great remedy is large quantities of sweetened water—in addition to this, use the cure for corrosive sublimate.

CORROSIVE SUBLIMATE AND MERCURY COMPOUNDS.—Give the whites of eggs, &c. same as in arsenic—if the egg mixture does not stop the vomiting, repeat the dose, with the addition of more water. Leeches, cupping, the warm bath, blisters, &c. are to be used.

EMETICS.—Encourage the vomiting by sugar and water, and after a while if it does not stop, give a grain of opium in a glass of sweetened water, every 15 minutes—in addition to this, apply mustard plasters to the stomach.

MUSHROOMS.—Give the patient immediately three grains of tartar emetic, 25 or 30 of hippo, and an ounce of salts dissolved in a glass of water, one third to be taken every 15 minutes, until he vomits freely—then purge with castor oil.

LAUDANUM OR OPIUM.—This must be ejected from the stomach as soon as possible—when the poison is altogether or nearly all ejected, give freely acids of the vegetable class, such as lime juice or vinegar and water. If the patient lie in a deadly stupor, with cold extremities, the legs, arms and body should be rubbed, and blisters applied. The arms and legs are sometimes whipped with rods, and the soles of the feet seared with a hot iron.

LEAD—SUGAR OF.—Dissolve a handful of Epsom or Glauber salts in a pint of water, and give it at once; when it has vomited, use sweetened water—if the symptoms continue, act as directed for acids—the constipation of bowels that ensues, may be carried off by small doses of white or blue vitriol, taken on fast three times a day.

SALTPETRE.—Pursue the plan for arsenic, omitting the lime water. Large draughts of warm milk are excellent.

CATHARTICS.—Excessive purges, spasms, &c., may be diminished in the same way as excessive vomiting, that is, with laudanum, opium, or paregoric—mustard plasters.

PART II.—ACCIDENTS.

BURNS.—The remedy is an application of spirits of turpentine alone, or cotton steeped in it, and applied to the wound—this produces suppuration, after which the burn may be healed by a liniment composed of equal parts of linseed oil and lime water, or with an *ointment made of thorn apple.* The application of carded cotton, if turpentine cannot be had, will do very well. The blisters which occur from burns, should be opened as soon

as the irritation subsides, by small punctures, rather than incisions. When fevers attend burns, mild laxatives become necessary; and where the pain is violent, laudanum ought to be given in pretty large doses. Should the sores not heal kindly, astringent washes are necessary, as recommended for indolent ulcers.

BLEEDING.—Instances have been known of the veins of negroes bursting, and they have bled to death. A distinguished surgeon says, if it be a vein in a limb, the leg, or arm should be elevated perpendicularly, until medical aid can be had, and that a cord should be tied around the limb, between it and the body, as nigh the aperture of the vein as possible. If a tourniquet cannot be had, apply lint, and if this does not do, press the hand above the wounded part, or place the fingers on the vein or artery itself, until a ligature can be applied. If you have not a tourniquet, take a garter or a cord, make a small linen cushion, about four or five inches long, three broad, and about two thick, or roll up a handkerchief hard, in a similar form, and lay it on the trunk of the artery, above the wounded part; put the garter or cord over the handkerchief round the limb; tie a knot, leaving a proper space, and then twist the ligature with a piece ofstick, until the hemorrhage be completely restrained; you are then to prepare a ligature, formed of two or three white waxed threads, proportioned to the size of the vessel; after which, slacken the bandage, in order, by its hemorrhage, to discover exactly the situation of the artery, and with a crooked needle, stick its point into the coat of the artery, and draw out the latter for the eighth of an inch, when a ligature, previously placed over the instrument in the manner of a ring, by one of the ends being put twice through the other, (termed the surgeon's knot) is to be pulled over the point of the needle by an assistant; and when upon the vessel, its two ends should be drawn gently, until the sides of the latter be compressed. A second knot, if the artery be large, may then be made; after which, the instrument is to be removed, and the ends of the thread or ligature cut off, at such a distance, that they may hang at least one or two inches without the edge of the wound. When a small artery is wounded, if it be divided, it retracts, and the bleeding presently ceases If it be punctured, the wound should be enlarged, and then

the artery may be tied, if proper pressure prove ineffectual.

Bleeding at the Nose.—In fevers, bleeding at the nose is of service, if the patient be not rendered too weak. To be stopped, the patient should have his head raised, and exposed to the cool air—he should immerse his head in cold water, and should apply cloths, dipped in cold vinegar and water, to his nostrils, face, and back of the neck. A key, applied cold to the naked back, often succeeds. If these will not do, lint, dipt in strong alum water, or a powder composed of flour and alum, of equal quantity, should be introduced into the nostrils, with sufficient force to compress the orifice of the ruptured vessel. Charcoal-snuff is excellent—placing the feet in warm water while applying the cold remedies to the head, is good. The bowels are to be kept gently open with glauber salts, and nitre is occasionally to be given.

Bleeding from the Lungs.—For this, bleed immediately, and give nitre in doses of ten grains, every hour. Blood from the lungs, and from the stomach, may be distinguished in this way—from the latter, the quantity is more considerable, and of a darker color; when the lungs are affected, the patient cannot inhale the air and keep his breath without coughing. Two tea-spoonsful of common salt, dissolved in a small quantity of water, and given every two hours, or oftener, will check this disease, as well as hemorrhage, from the stomach and uterus, says Dr. Rush. A blister on the chest will relieve pain.

Bruises.—See Sprains.

Drowning.—If the patient be taken out of the water in a half frozen state, let him be rubbed with snow, or flannels wrung out of cold water or vinegar, before artificial warmth is applied—if not frozen, let him be rubbed dry, and wrapt in warm blankets, and placed on a bed or matrass, with the head elevated—air is then to be blown into the lungs, by inserting a pipe or a pair of bellows into one nostril, or with a quill, or even a card folded into the form of a tube, while the mouth and opposite nostril are closed by an assistant, or covered with a wet paper—volatile salts and vinegar should be applied to the nostrils—next inject warm spirits and water, or mulled wine, into the intestines, or inject them into the stomach by means of a syringe—place a bladder or bottle of warm water to the stomach, and rub the legs and arms briskly

with warm hands or flannel, extending the friction gradually to the thighs, belly and chest. Moderate the stimulating when the first dawn of returning life is observed. When respiration and the power of swallowing are restored, he should be kept moderately warm, and gentle perspiration encouraged by warm drinks.

DISLOCATIONS, FALLS, FRACTURES.—When these happen, send directly for a physician. Take care how the patient is moved—if any of his limbs be fractured, say his leg or thigh, do not move him until you get a proper vehicle, as a door or two or three boards, well secured together, on which he can be placed. In doing this, two persons may raise him by means of a sheet slid under his hips, whilst one raises him by the shoulders, one person raising the sound leg, and one carefully conducting the fractured limb, which should be placed on a pillow, with the knee a little bent. His bed should be made in this way—in place of the laced canvass, bottom boards are to be laid across the bed frame, which makes the bed hard, and keeps it perfectly level and smooth during the cure. In place of a feather bed, a matrass only is to be laid above these boards; over this another, cut into four parts, with a piece of a sheet sewed round each portion, is to be placed, that they may be shifted under the patient from time to time. On the bed thus prepared, a pillow, like a matrass, flat and firm, is to be laid for receiving the limb. If these precautions are observed, when the surgeon arrives he will *thank you.*

LIGHTNING.—*Instantly* throw cold water in large quantities on the face and head repeatedly—or the whole body may be plunged in cold water, afterwards wiped dry, and gradually warmed. If extremities cold, immerse the patient in a warm bath about 20 or 30 minutes, using friction at the same time with the hand—wipe him dry, wrap him in warm flannel, and give gentle stimulants.

PINS—SWALLOWING OF.—Look in the throat, and endeavor to get it out if you see it—if you cannot, give milk with raw eggs; by the coagulation which takes place, the substance may become so involved as to prevent its doing injury to the stomach—opening medicines which render the fœces thin should be avoided. Injury rarely occurs from swallowing a pin.

SPASM.—When the symptoms appear, the patient should be immersed in a bath of warm water, soap-suds,

or a lie made with wood ashes, as long as he can bear it, and opium should be given in pretty large doses, every two or three hours, as the symptoms may indicate. Between the doses of laudanum, wine or spirits may be given. If the opium cannot be swallowed, six times the quantity may be injected in clysters. The cold bath is said to be good—so also salivation, tincture of cantharides, solution of arsenic in doses of 10 drops, with an equal quantity of laudanum, and a large spoonful of spirits, every half hour—spirits of turpentine, and an infusion of tobacco, have been given with success, by way of injection. Large emetics are given by some with great effect. In every stage of this disease, the bowels are to be kept open by stimulating purges or clysters—when local injuries have been the cause of spasm, the wound should be dilated with the knife, and filled with common salt, or saltpetre, or spanish flies, or turpentine, and afterwards dressed with warm poultices, until the wound be brought to a state of digestion. If a wounded finger or toe be the cause of spasm, it ought instantly be cut off.

SPRAINS.—Plunge the part injured in cold water; after this, apply cloths wetted with vinegar or lead water, to which laudanum may be added, and renew as fast as they grow warm, until the pain and inflammation have subsided; then let the part be dressed three times a day, with a bandage of brown paper dipped in warm vinegar and spirits, or rubbed with opodeldoc or volatile liniment. If the patient be plethoric he may be bled. Give cooling cathartics and light diet.

In cases of injury by falling from a horse, scaffold, &c., the course to be pursued, is as follows, viz.—If the injury be on the head, the patient should lose blood, whether the pulse be slow or rapid, and if insensible, it (loss of blood) should be free and frequent; also with injuries to the spine and other parts of the body, it is generally best to lose blood—but where the pulse is very weak, and the patient faint, it should be delayed until some reaction takes place, and he recovers a little.

SUN-STROKE.—Bleed copiously—give a dose of calomel, followed by a large dose of salts—apply wet cloths to the temples—bathe the feet in warm water—use blisters—keep the patient's head up, and his bowels open.

WELLS—CONFINED AIR IN.—The patient should be freely exposed to pure cool air, and supported in a lean-

ing posture. Volatile salts, or other stimulating substances, are to be applied to the nose, and cold water used as in lightning. When the extremities become warm he may be bled. Open his bowels.

Wounds.—Cuts.—Put the part in a bath of lye—fill it with saltpetre or turpentine, then apply a poultice of corn flour or mush and turpentine, and after a due suppuration, heal it with wax and oil, or any other healing plaster. Should the cut be ugly, the lips may be brought together by adhesive plaster; this may be effected in a small cut, by pressing the lips together with the fingers; or the lips of the cut may be closed by stitching them with a needle and waxed thread. In all wounds, cuts, snags, or gun-shot, the main object is suppuration. Gun-shot wounds are more liable to mortify. The best remedy for this, is to apply a blister over the gangrenous part, sufficiently large to cover one or two inches of the sound flesh, and afterwards to dress the part with caterplasms, made of bark, charcoal powder, and yeast, to be renewed every three or four hours, or as often as they acquire a putrid smell. When the mortified parts begin to separate, remove no more at each dressing than comes away without pain or loss of blood; and as soon as the gangrene stops, and granulations of good flesh appear, it is to be treated as a simple ulcer.

Part III.—BITES.

The bites of all venomous animals are cured by the same means, which are very simple, when the remedies are at hand. The caustic volatile alkali, or eau de luce, is an antidote against the bites or stings of the most venomous serpents or spiders. Lint, wet with either of these, should be applied, and if need be, a tea-spoonful of the same medicine, given in a little water every hour, or oftener, as may be indicated by the symptoms. Lunar caustic possesses the same virtue, in parts of five or six grains, in two or three ounces of water—cloths to be steeped in this and applied to the part—some of the same, in a more diluted form, may be drank. When these cannot be had, a cataplasm of quick lime and soap should be applied, and as much cayenne or red pepper, mixed in spirits, swallowed every hour or two, as the stomach can possibly bear. The juice of plantain and hoarhound, in doses of a table-spoonful every hour or two, is considered

a remedy for snake bites. Always apply a ligature above the injured part, until suitable remedies can be had. Poison may be sucked out of a bite, if oil or sweet milk are first kept in the mouth, and the operator does not swallow the saliva—his teeth and gums must be sound. For stings or bites of insects generally, hartshorn is a good remedy, applied to the part injured.

MAD-DOGS—BITE OF.—Cut out the part immediately—if a finger or toe, off with it; then apply a cupping glass, and cauterize the wound with lunar caustic, or a burning iron. The Germans first rub the bite, after it is cut out, with salt, and keep on a poultice of salt. If the wound is too deep, wash it, cut it, and cauterize it, or use the salt. The patient is to be treated with mercury, and salivated.

STINGS.—See Bites.

BARNWELL.

Irish Potatoes.

Mr. Editor,—There is no root crop more valuable in some parts of the world, than Irish Potatoes; and could we learn how to preserve them in large quantities in the lower and middle country, they would constitute a favorite crop. They are not only a delightful table meal, but they can be applied to various uses. For instance, the flour made from them always sells higher than wheat in Europe, to confectionaries and bakers, who prepare the finer sorts of bread. Large manufactories are established nigh Paris, which manufacture some years 40,000 tons of potatoes into flour. Large quantities of starch are made from them—potash may be extracted from their leaves and stalks—cattle relish their leaves—and the roots afford the richest food when boilt, for horses, hogs and cows. This is not all; the refuse of them, taken from the manufactories of flour, is used to clean woollens, and make wine and ardent spirits; and let our dyspeptics note it well, when we say, they are recommended as an admirable diet for those affected with acid stomach and indigestion. What seems to me, however, of great consideration, is this—they may be planted in

January, and the same land in corn, in time for a crop. Again, they yield more in *new ground* than the best unmanured land. In some parts of this State, new ground will produce no other crop except peas—corn is usually planted with the peas, and worked to prepare the ground for a next year's crop of cotton, and the fodder it gives. The reason is, because the soil is too full of fibres and roots, the which, Irish Potatoes riot in. They, in this way, have more air than in old ground. I have tried it, Mr. Editor—the yield from new ground is always fine; and you need not work them more than twice; because, the grass in new ground, such as I describe, never pushes the planter for the first year. After the potatoes are gathered, you may then plant corn or peas, and thus gaining something more, prepare the soil for next year's cotton. Some of your correspondents would do me, and I believe others, a lasting service, to tell us how they may be preserved. I did hear that in Fairfield the farmers knew the art; and if so, I hope they will tell us—for they are indeed valuable, being the FIRST MATURED CROP WE CAN FEED OUR PEOPLE WITH. Half allowance of corn and potatoes are prefered by negroes, particularly, when they have bacon to boil with them. Even frosted potatoes may be applied as food for cattle, by thawing them in cold water, or being thawed, pared and boilt with a little salt.

The diseases of the Irish Potato in England, are chiefly the scab, the worm, and the curl, but I have not as yet discovered the appearance of either. Our potatoes are always thin skinned, too much so, and too watery. This watery principle is the cause of their rotting; and any plan to rectify this, before they are put up, would doubtless preserve them. The foreign and up-country potato are rough and dry and mealy; and towards the mountains can be preserved. This only convinces me, that if they were dried by some process before being put up, or rendered less watery by the artificial properties of the soil, they could be kept sound the whole year.

I have never succeeded. One of my neighbors tells me, that his father has preserved them, by digging a cellar under the house, and covering them with straw: however, as I have before me the methods by which they are preserved abroad, I will state some of them for the information of all concerned. I shall test these methods

next year if I live. This is the fixed rule—whatever mode of preserving them is adopted, it is *essential* that the *tubers* be perfectly dry, otherwise they are certain of rotting; and a few rotten potatoes will contaminate the whole mass. They are put up in houses, cellars, pits, pies and camps. The general mode is, during dry weather, to put them into houses, and cover them with dry straw. The most successful plans, on whatever place they may be piled, require, *that they should be perfectly dry before put up—the place where, not damp*, and the covering straw. The methods which strike me as being best adapted to our climate, are 1st. to place them in thin layers on a platform, suspended in an ice cellar—2d. to scoop out the eyes with a very small scoop, and keep the roots buried in earth—3d. to destroy the vital principle by kiln-drying, steaming or scalding—4th. *to bury them so deep in dry soil, that no change of temperature will reach them; and consequently being without air, they will remain upwards of a year without vegetating.* These methods are thrown out for the benefit of your readers, with the hope, that some of them will turn their attention to the subject. The value of this root can be well estimated, when I say, that it is the first crop out of which we can feed our negroes. We can commence to dig potatoes as early as May, and what is more, in so doing prepare our new ground for the next year's cultivation.

Before I conclude, let me inform you, Sir, of the best method of boiling potatoes, a piece of information not below the notice of a prince!

Set them on the fire in *cold water;* when boiled pour off the water completely, add a little salt, and dry them well on the fire. Another method:—choose your potatoes of equal size, and put them into a saucepan, or pot without a lid, with no more water than is sufficient to cover them; more would only spoil them, as the potatoes themselves, on being boiled, yield a considerable portion of water. By being boiled in a vessel without a lid, they do not crack, and all waste is prevented. After the water is come nearly to boil, pour it off, and replace the hot by cold water, into which throw a good portion of salt. The cold water sends the heat from the surface to the heart of the potato, and makes it mealy.

RUSTIC.

An Improved mode of Planting Cotton in the Upper Country.

TO THE EDITOR OF THE SOUTHERN AGRICULTURIST.

Benton County, Ala., Sept. 6th, 1837.

Sir,—Accompanying this, are five dollars, the amount of my subscription to the Agriculturist for the present year,—to which I would add a few thoughts on what I think an improved mode of planting cotton for the upper country. In this section, there are three plans that are in general use, each of which I believe to be considerably objectionable.

The first, and that which I think is most frequently followed, is to run a single furrow, with a bull-tongue or gopher plough—in which the seed are drilled—then to cover it by running on each side a furrow, with an ordinary shovel plough; and at the expiration of a week or ten days from the time of planting, to strike off the top of the ridge by a board affixed to an ordinary plough stock, so as to level the bed, and remove the first growth of young grass.

The second mode is to throw five furrows together, so as to form a tolerable ridge, in the centre of which, to run as small a furrow as possible, and drill the seed—then to run a small harrow on the drill, so as lightly to cover the seeds.

The third plan differs from the second only in covering with a board of ten or twelve inches in length, affixed to a plough stock, in a way similar to the one used for striking off the ridge in the first plan spoken of.

My objections to each of these modes, I proceed to state.

In the first place it will be considered, that on planting, it is desirable to place the seed in a situation in which the spring rains may drain from them; also, that they may receive as much as possible the warmth and benefit to be derived from the feeble rays of the sun, at the period of planting.

The first plan I deem objectionable, inasmuch as it buries the seed too deep in the earth, at the bottom of a furrow, in which the cold spring rains, in a stiff soil, will run, and measurably settle—which, together with being covered with so great a depth of earth, at a cool season of the year, must destroy the germinating properties of the

seed, and cause so frequently a bad stand of cotton—what does come up, has often so little vigour, as to die almost immediately; or if it at all survives, to remain stunted considerably after.

The second and third plans are objectionable, inasmuch as the grass frequently gets the start of the cotton—whereas much labor might be saved by keeping the cotton clear of grass in the early stages of its growth.

The plan I propose, and which I have successfully adopted the last spring, is as follows: first, to run a small furrow, with a bull-tongue or gopher; second, to run with a common shovel, a furrow on one side, that the soil from it will sift into the first furrow, so as to about fill it, then drill the seed immediately where the first furrow was run, and cover pretty heavily by running a furrow on the other side.

By the seed being placed on the top of the gopher furrow, an excess of moisture is drained off, by running under the seed, and the elevation of the seed is sufficient for it to receive all the advantages to be derived from the rays of the sun at that season. But there are yet other advantages to be spoken of. Immediately after the cotton commences showing itself above the surface of the ridge, another furrow must be run on each side of the former, making in all five furrows, so as to cover completely whatever grass may be coming up on the edges of the two former; and then by a board twenty inches in length, affixed to a plough stock, and hollowed out two and a half inches on the lower edge, strike off the top of the ridge of the old furrow, which will level the bed—take off the crust of the earth, and demolish entirely whatever young grass may be appearing or about to appear on its surface, and in ten days the cotton will be thrivingly discernable from one end to the other of the row.

JOHN BALE.

Cabbages.

Let us strongly advise those who can do so, to put a small portion of salt mud around such stalks of cabbages as they may have planted. The mud should be put around in a soft state, and in quantities of about one handful to

each plant. If this plan is followed, good cabbages may be had throughout all the winter.

It should be recollected, that the cabbage plant, in its original growth, is indigenous to salt lands; and several years experience has proved to us, that when manured with salt mud, it is considerably improved in growth and flavor. Of the effects of this manure upon summer cabbages, we said something in a former number. Let us here add, that while the salt in the summer prevents the plant from suffering of drought, in winter it prevents the earth around the roots, from becoming too severely frozen of cold.

Strange Mortality among Poultry.

A few days since, we were witnesses to a strange mortality among the poultry of one of our neighbors of Edisto Island. Several geese, and fowls, and a large number of ducks, in a very fat, and apparently healthy state, were suddenly seized with a disease which carried them off in a few hours. Had the disease been attended with severe purgings of the *patients*, we would have been inclined to denominate it Asiatic Cholera: but this was not the case. On the contrary, the bowels of the *patients* seemed *constipated;* and they died off with an apparent apoplexy. Some of them were bled; and castor oil given them, with great success.

The mortality to which we have alluded, was not confined to the one plantation, but was experienced on many in the same vicinity. In some instances, every fowl, duck, goose and turkey on the plantation, died: and in one instance we beheld several very fine and valuable dogs, which had eaten of the diseased poultry, die off in a few hours afterwards. Buzzards, also, which devoured them, were seized with the disease, and in a few moments afterwards were taken with a severe vomiting, and died.

The inhabitants of the island have never enjoyed better health! What can this singular mortality among their poultry arise from? Can any of our friends or correspondents inform us?

Inquiries respecting Ruta Baga, Clovers, Wheat and Gama Grass.

Near Fayetteville, N. C., Sept. 27th, 1837.

Mr. Editor,—Suffer a subscriber to propose a few inquiries respecting the proper time to plant ruta baga in the Southern country, and particularly in North-Carolina. Is ruta baga grown to any considerable extent in Georgia and the Carolinas? At what time is it proper to plant them?

Turnips are profitably grown for stocks in the hill country of North-Carolina, but can they be made a valuable crop in the middle and low country?

Red clover is said to be a very ameliorating crop where it can be grown; indeed it is said turnips and clover are the basis of all good farming. Now sir, I hope that this may meet the eyes of those who are capable of giving instruction to those who are unacquainted with the habits of those plants; and if it be possible to grow them in our Southern country, some of our farmers will at least try to resuscitate their lands. On the improvement of our soil, depends the wealth of our country.

The sugar beet is said to be very profitably grown in France. Can it be cultivated in our warm climate?

Root culture and the red clover, if they can be grown to any extent, will afford us an abundant supply of the most valuable manure; and with a plentiful supply of good manure, the products of the best managed farm in my knowledge may be quadrupled in six years. I have been manuring my lands for several years, but have not been able to obtain enriching substances in that abundance which is necessary to the improvement of even a small farm.

I have the present year devoted a small portion of my corn land to the growing of grass for hay; it has yielded me double as much money as it would have done if it had been planted in corn, at less than half the expense of labor. The farmers of North-Carolina can make hay in very great abundance, if they would but turn their attention to the subject. A great deal of our land is well adapted to its growth.

Heards grass will yield one heavy cutting of hay early in July, after which the climate seems to become too

warm for its habits. Only one cutting need be calculated on under any circumstances in this vicinity. The proper time to sow it is when we sow oats, in February or March.

Wheat does not do well with us in this part of the country. Whether our soil or climate does not suit it, or whether we do not plant it at the proper time, I should like to be informed. Those persons who cultivate it most successfully, generally sow it in October, at the rate of about half a bushel to the acre. What says the experience of Southern planters?

Let us hear something of the success of those who began to cultivate gama grass some three or four years ago. Do they think as highly of it as they did then? Almost every person who commenced its culture in this section of country, has abandoned it as worthless. If there can be evidence found to prove its intrinsic value, plead its cause, and let it become to our own impoverishing country, what it was thought, by its warmest friends, it would become a few years since—a great restorer of fertility.

I am, very respectfully,

JONATHAN EVANS, Jr.

Under-Draining.

Long Branch, Sept. 12th, 1837.

Mr. Editor,—Permit one who is not a subscriber to your useful work, (for reasons not necessary to mention) to record in its pages the result of an experiment upon my farm. This will be my first appearance in print, and most likely my last also—certainly so, unless it should be my good fortune to light upon something which I may think beneficial to farmers, and unknown to, or at least unexperimented upon by them.

I do not know that under-draining, on my plan, has been attempted any where in my neighborhood, or any where else, but I am so well satisfied of its efficacy, that I would not recommend it to farmers only, but to the authorities of all small towns and villages, as a proper substitute for trunks and unseemly open ditches, wide and deep enough, in some places, to accommodate the whole

population. Although I work but few hands, and therefore call myself a farmer, I have a large body of land. Unfortunately, the part deemed most suitable for planting, was disfigured and greatly injured by two large ponds, which never dried entirely. They were not wholly useless, because we frequently used the mud in preparation of manure. This advantage, however, went but a little way towards counterbalancing the evils attendant upon the existence of the ponds, and though my father would often wish "them darn'd ponds would dry up forever," he never thought of such a thing as an underdrain, except by means of a trunk, which he said would cost too much labor and money, and would not last over four or five years. After a while the farm fell to me, and for several years I did as my father did before me, that is, looked mad at the ponds and wished them away. Accident at last determined me to attempt draining them. Not very distant from my house, and on the side of a gully leading to the branch, there was a clay pit, which many years before had been opened for making bricks. It never held water long, and as there was a leak into the gully discoverable as long as water remained in the pit, it was very naturally concluded the water escaped that way, and so it did. A large tree having fallen, and with it a large slice from the face of the bluff, or side of the gully, the leak from the pit was more exposed. Upon examination, it appeared a ditch had once been cut to carry the water to the gully. In process of time (or by design) it was filled with surface soil, pebble, gravel, and leaves. My father knew nothing of this drain or ditch having been cut, as I should judge from his always saying he supposed the water found a softer place on that side, and leaked through. As the pit was not very deep, and the water never remained long enough, to risk the health of his family, he never troubled himself about it. It occurred to me immediately, that I might improve upon this accidental discovery, and drain my ponds. I observed all the leaves (pine and oak chiefly) were sound, though discolored. Having determined upon draining my ponds, I commenced operations, and my labors have been crowned with the most complete success. To be sure I have been three years doing what I have done, because my father having left his estate embarrassed, I was resolved not to divert any part of my small force

from the usual cropping. I worked at my ditches then only as I could spare the hands, or procure their labor by the promise of reward. Taking care never to fail complying with my promises, I procured much work to be done, at a very small cost. The pond farthest from the branch was the highest about two feet when both were full, and they were separated by an irregular narrow flat running between the hills, something over half a mile. Tradition says, that before the "old revolution war," a "water cloud" burst over these parts, and so much water fell into this valley, that for a considerable time the ponds were united. This may well have been true, for when the upper pond is called full now, the barrier between the two is only twelve to fifteen inches above its level. The greatest difficulty was to master the ridge between the lower pond and the branch; the distance being twenty-two hundred and thirty-four feet, through stiff red clay, and the average level above the surface of the water, six feet. A mighty undertaking for a force of only thirteen hands; but as I had set my mind upon it, I made a beginning with a stout heart. I broke ground twenty feet from the lower edge of the highest pond, and opened a ditch two feet and a half at bottom, and as nearly as possible two feet below the surface of the water. I preserved a level bottom, and finally opened my ditch a few feet from the lower pond, and a mere trifle above the level of the water in it. After building a temporary bridge over my ditch, I opened the upper end, and the water flowed on, till a level, common to both ponds, was produced, covering permanently the bottom of the ditch, about several inches, the highest pond being considerably the largest. So far, nothing useful was accomplished, but it was a good beginning. I had now to seize the "bull by the horns," and nothing daunted, I addressed myself to the encounter. Again I left twenty feet on the lower side of my pond, and as much on the bank of the branch. This ditch had the same breadth at bottom, but was sunk three feet below the level of the water in the lower pond. Again a level bottom was preserved, and after a great expenditure of patience and labor, my ditch was completed, with the exception of the bar, left at each end. The upper bar being removed, the water rushed in, and for several reasons, (among which to soften the clay was one) it was permitted to remain unmolested,

seventeen days. Resuming my labors, I removed the bar at the lower extremity of the ditch, in such a manner as to allow the water to pass gradually down the hill side (in a leader or shallow ditch cut for that purpose) to the branch below, the level of which was about thirteen feet below the bottom of my ditch at this time. At length my ditches ceased to draw; they were both dry, and the water level had fallen in the upper pond seven inches, in the lower three feet. On examination, I found the average depth of water remaining in the upper pond about three feet, and in the lower about twelve inches. Having overcome the most difficult part of my enterprise, I went cheerily onward. The last ditch, (or that between the branch and the ponds) I sunk three and a half feet, which drained the lower pond perfectly, being about thirty inches below the surface of the mud, or bottom of the pond. The upper ditch was then sunk five feet and a half, keeping both ends barred, as in digging the one next the branch. I then had the lower ditch continued on a level, through the lower pond to the lower end of the upper ditch. The bar at the upper end (of the ditch between the ponds) was then removed, and when the ditch had filled, the lower bar was very slowly reduced, in order to prevent injury to the banks of the ditch through the soft bottom land. The water was finally drawn from both ponds, and the first ditch was extended across the higher or upper pond. My next care was to graduate the bottom of my ditches, so as to secure a proper descent to the branch. Having satisfied myself on this point, I cut saplings of pine, and small trees of oak, hickory, beech, &c., and laid them singly butt and top, in the bottom of my ditch, from side to side, covering them with a good layer of pine, straw and other green leaves and small branches, as fast as I laid down the young trees. This done, I filled up my ditches with the material taken from them. In this way I completed my drain by sections, not permitting either trees or leaves to remain longer after being cut or gathered, than was absolutely necessary.

Thus I have rid myself of two ponds, and improved the appearance, and very materially enhanced the value of my plantation. Since the completion of my drain, we have had gusty and wet weather, three times within the last seven weeks, and no water remains. It is my intention to plant them both next season, one with corn, the

other with cotton; and I do not doubt, the yield will amply remunerate me for my trouble. I may be mistaken, but it is my opinion the drain will not require any repair for half a century to come, the young trees and leaves being no where nearer the surface, than twenty inches at present, while every year must add something to the mass of soil above, by means of the washing of the hills, and the foliage cast by the trees. If on trial I find my ponds too moist for planting, I will find an effectual remedy in narrow lateral drains of similar construction with, and leading into the one lately completed. There can be no doubt, many ponds and marshy spots are permitted to remain in villages, and on plantations, from considerations of the labor and expense of draining them, and from a well founded dislike to open ditches. My plan will in a very great degree remove the difficulties villagers find in the way of draining, while the planter will, I am sure, not only find it feasible, *but cheap*—requiring no actual outlay, except for a trifling extra distribution of handkerchiefs, tobacco, pipes, molasses, &c. The experiment is worthy a trial, and I recommend it to all, who are not wedded to ponds and bogs.

ECONOMY.

Report of the Cotton Crops of St. John's, Colleton.

The Committee of Inspection of the Agricultural Society of St. John's, beg leave to make the following Report:

According to instructions received from the Society, the said committee devoted several days, during the past week, to the examination of such crops upon the island, as belong to the members of this Society. Before reading the result of their examinations, they deem it necessary to present a few considerations on the season which has just past; because to it may be attributed the unfavorable report, which the committee have been compelled to make. Since the year 1813, it is believed, that a more disastrous season, than the present, has not been experienced by the cotton planters. From the time our seed was put into the soil, to the present, we have encountered a series of storms and other obstacles, arising from natural causes, which have almost entirely destroy-

ed our hopes, and put at nought our most industrious exertions. The severe cold weather which occurred soon after our seed had been planted, obliged most of us to replant as many as three and four times; and it may be safely affirmed, that not until the middle of the month of May, were our crops entirely set. This difficulty, however, had been almost overcome, and hopes of promising crops began to be entertained, from the favorable season which immediately afterwards ensued. But, as is too often the case, when the fields just began to promise a rich and abundant harvest, the first of a series of storms was encountered, which injured materially the greater portion of the cotton on the Island. Had this been the only storm, it is supposed, that on a general average, a saving crop might have been made; but as soon as the crops had now began to revive, another severe gale was encountered, and before we had well recovered from the shock which it created, another was experienced, which has in some places totally destroyed the plants, while in all it has so injured them, as to leave behind one of the poorest crops, which has ever been made upon this island.

The committee in making out the report, have done so after an examination of the crops of members of this society only, and even with them, their examination has been confined to Edisto Island alone; but they deem it important to state, that they have been at no little pains to institute inquiries as to the state of the cotton crops in other portions of the sea coast. From information received, upon which the fullest reliance can be placed, they are authorized in saying, that as bad as the crops of this island have been found to be, those of the adjacent islands and sea coast are represented as being still worse. The committee in making out their estimate, have done so after an actual examination of the amount of cotton already picked and in the house, added to the estimated amount in the field. Generally, at this season of the year, planters have picked in more than half of their cotton. If this be the case at the present time, their estimate will fall considerably lower than what they have made it.

The season has been so disastrous, and so unpropitious towards unfolding the results of experiments which have been tried, that the committee were not warranted in paying much attention to this matter. They deem it important, however, to state, that in one or two instances

they became fully convinced of the adaptation of salt mud to cotton, where the land was low. In one field where compost manure had been applied alongside of mudded land, upon a low damp soil, the difference was obviously in favor of the mud as a manure. The cotton manured with it, neither dropped its fruit so readily, nor suckered so much as where it had been manured with compost.

The following is the result of their examinations.

[There followed a table of the amount produced, &c., on each member's plantation, which we omit. We however give the general average, &c.—*Editor.*]

From the above calculation, it appears that the number of acres cultivated by the members of this Society, is 2,009—that the amount of cotton already gathered is 28 lbs. per acre—and that the entire production as estimated, is 77 lbs. to the acre.

All of which is respectfully submitted.

I. JENKINS MIKELL, *Chairman Com'tee.*

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Mr. President,—In accordance with the wishes of this Society, we now have the pleasure to render you a report of the crops of John's and Wadmalaw Islands, of the years 1836 and 1837. This statement is taken from a detailed account, personally received, from the proprietor, agent, or manager of each plantation, with the exception of a very few places, on which there being no white person, and the proprietor's residing at a distance, that our report might be full, we received the best information we could collect, and the average crop given to each, was not less than the adjoining places. The estimate of the present crop is certainly not too high, as in several instances the crops were over-rated, not more than one-fourth of the expected yield being gathered, and the plants entirely destitute of top fruit, miserably diseased, and the little fruit they yet retained daily drying up. The crops of these islands, up to the great storm of the 18th of August, were generally the most promising that have been known for many years; but that and the succeeding storm, with the great fall of water, destroyed our bright prospects, and many planters will not realize the ordinary expenses of their plantations—our best lands have failed, and agricultural skill has been of no avail. The crop of grain, although not abundant, is generally fair. Many plantations have made but a short crop of roots.

We were much pleased in our excursion through the islands, to find as great health as can be enjoyed in any quarter of the globe. On every plantation that we visited, we made the inquiry, and without an exception, the invariable answer was, no fever, either amongst whites or blacks. And we have abundant cause to be thankful to a beneficent Providence, that we have not to encounter the usual diseases of our climate at this season of the year, with the loss of our crops

The summary statement of the crops of John's Island and Wadmalaw, exhibits—In 1836, 7,000 acres of cotton were cultivated, which yielded 2,171 bales, 300 weight each bag, making 651,300 lbs.; average 908½ lbs. per acre. In 1837, 7088 acres of cotton yielded 1132 bales, 300 weight per bag, making 339,600 lbs.; average, 403¼ lbs. per acre. Deficiency of the crop of 1836 to that of 1837—989 bales. WILLIAM SAMS,

Chairman of the Committee of Inspection.

We were present at the Agricultural Society of St. John's, Colleton, when the above reports were read, and it was the uniform opinion of a large body of the planters, that the crops far from being under-rated, would on the contrary fall still shorter. Since that period, we have experienced another severe storm of wind and rain, which has injured the crops still more. All over the State, the crops have been injured, beyond all parallel; and bad as was the last year's crop, that of this season will beyond doubt be less than half, when compared with the former. We are above mistating fact for commercial or speculating purposes; and we trust that our merchants will profit by the statements we have furnished.

New and Nutritious Aliment.

[FROM DR. RYAN'S JOURNAL.]

"I have been favored with a small box of a new and very delicious aliment, by Dr. Waterson, of St. Kitts, who has also furnished me with the following account of it. This substance is the pith of the roots of the *Canna Coccinea*, when eight months old. The preparation of it is more tedious and troublesome than that of arrow-root. The *Canna Coccinea* flowers every month, and this has

led the French to term it '*tous les mois;*' and a corrupt English translation, in popular use, is '*toulemong.*'

'You will find,' continues Dr. Waterson, 'by using it in your own family, and by analysing it, that it differs most materially from arrow-root; and I consider it, as a diet for the sick, very far superior to sago, tapioca, arrow-root and gruel. My own experience makes me satisfied, that it is a most nutritious diet, easily digestible, and is, consequently, invaluable in diets for infants and children, and is eminently adapted for persons of dysenteric, diarrhœal, and consumptive habits, because there is, in my belief, less acid in it than any other farinaceous food with which I am acquainted. I have never known it turn sour upon the stomach. It is in great demand for fever diet, thickening soups, and making puddings, as a little goes a great way. It is the ordinary food of the dyspeptic, and in enemas, it is truly serviceable for allaying the effects of acrid bile on the coats of the rectum, and for sheathing them in cases of abrasion or inflammation."

Agreeably to the request of my correspondent, I have tried the *tous les mois* in my own family. It makes a more consistent and delicious jelly than arrow-root, and is, in my opinion, far superior to it or any other farinaceous powder used in this country as an aliment for infants, invalids, or convalescents. It is prepared like arrow root, and about half the quantity makes a thicker jelly. I have given it to my own children, used it at my own table, and presented quantities of it to my friends. It deserves the high praise bestowed upon it by Dr. Waterson, and cannot fail to be patronized by the medical profession and the public.

It is cultivated by Mr. Olpherts, a magistrate at St. Kitts, and a scientific agriculturist.

It may be procured in London, from Mr. Pearce, Pedler's Acre, Lambeth.

M. RYAN, M. D.

Great Queen-st., St. James' Park, Westminster.

August 9th, 1836.

[N. B.—Dr. J. Johnson has been using the nutriment above mentioned, for more than a month past, every day; and can confirm the statements of Drs. Waterson and Ryan, in respect to the lightness, nutritious quality, and indisposition to acidity of the article in question.]

[Persons wishing to obtain a sample of the article, may do so by applying at the office of the *Southern Agriculturist.*]

PART II.

SELECTIONS.

Wheat Culture in Virginia.

[FROM THE MAINE FARMER.]

MR. HOLMES:—I send you an account of the method of raising wheat in Old Virginia. If you think any thing is contained in it that may be useful to our farmers, you may publish it. ———.

The wheat crop in Virginia is of vast importance, calling into action the energies of the anxious farmer, who is more peculiarly engaged during the two interesting seasons of sowing and reaping.

The manner of cultivating the land intended for this grain, differs with the variety of soil, the kinds of which, in the eastern part of the State, may be confined to two classes, the "Stiff" and the "Light."

There are various opinions with regard to the best method to prepare these for the reception of "small grain," yet the experienced agree in one particular that the former should be thrown up; and the latter thrown down, or "fallowed." In these respects, as also on account of its high state of improvement, "corn land," or that from which the crop is just gathered, is admirably well suited: and thus the prevailing custom is to appropriate such for wheat.

If the weather is favorable, and the situation o its predecessors permits, the season for "sowing" commences about the 10th of October.

Accordingly, as soon as possible, ploughs are started in the "stiff" lands to heighten the lately occupied beds, if needful, as also to "turn in" the vegetable matter. The sower, with his basket of wheat, then proceeds along the "alleys," and disposes of the grain with skill and judgment, apportioning the quantity to the condition and quality of the land. To the acre of good, 3 pecks or more is allowed: for that of poor or common light land, half that quantity of wheat is often sufficient.

In many instances, persons sow previously to ploughing, then they use a small plough, and afterwards other implements, if necessary, are set to work. This method is chiefly resorted to in the management of light lands, as also is the process of harrowing in the grain, the plough being dispensed with.

But such as may be adequately cultivated by this latter course of treatment, is by no means adapted to wheat, and the farmer sees that he is not recompensed when he puts it in wheat. This saying has become proverbial in the 'Old Dominion,' "Give us stiff land for wheat."

To conclude the plain of seeding, which it was first designed to give: when some progress is made in sowing, harrows proceed to cover in the grain:

"The Harrow follows harsh, and shuts the scene,"

which being done, some use Rollers. The pursuit of the system of rolling is advisable on some accounts: There is a probability of the grain's sprouting more immediately than when the earth is loosely thrown around it only, and with other advantages, there is, comparatively, quite a protection secured.

If a warm spell occurs soon after the wheat is sowed, there is danger to be apprehended of an attack by the "Fly," whose appearance is productive of serious consequences, and is deprecated by the farmer. It takes possession at a peculiarly tender stage of the growth, forming its nest among the sprouts, the ruinous effects of which do not appear till the spring, when the fly is discovered by the hardness and slenderness of the stalks. Much trouble and loss may be expected in raising the golden crop, for unfavorable seasons produce various causes by which it is shortened in quantity, and rendered inferior in quality. The rust, blast, and smut, combined with some other maladies, conspire against it, leaving no recompense for care and industry. Of course the failures, from what has been said, occurring occasionally only, do not discourage the farmer, for frequently a barren season precedes a plentiful and more abundant year.

Some advocate the plan of rolling the wheat early in the spring. The frost and freezes leave the earth in such a state, that it is evident that the result of this process would be beneficial.

It is an evidence of much neglect for the farmer to sow grain with cockle, onion, or cheat, intermixed; when these pests do appear, the diligent and systematic have them gathered as soon as distinguished.

As the harvest approaches, barns are fitted up, or preparations to "stack" are made; implements of various kinds, used in securing this valuable commodity, are repaired, or made, if wanted, and all things are in readiness, that when the famous season arrives, all hands may be profitably engaged.

Some experience is required to ascertain when wheat should be cut. Various stages are specified as appropriate for that purpose. In order to manufacture superior flour, grain should have just passed the "dough state:" for "seed," it may remain to be matured, before it is cut.

What is called "forward wheat," is cut in June, but this bears a small proportion to the bulk of the article made, the harvest of which occurs in July. It is quite an interesting sight to observe the reapers in their capacity of skilful and celebrated mowers, following each other in quick succession, and vieing to excel. In Virginia a scythe is attached to a cradle, which serves to gather in, and retain the stalks as they are clipped off in the handy sweep of this implement, from which the reaper disposes of the wheat conveniently for the rakers, and those who proceed in a few hours after him, to shock, or otherwise take charge of it. After wheat is cut and secured in the straw, it should remain so three weeks or more.

The season for "getting out grain," is about the middle of August. It is well to attend to this matter during this month, even though it may not be prepared for market: for if it is out of the straw there is more security. If care is not taken, this little insect, which germin-

ates in the grain, will appear. To guard against this, the wheat is passed through a "heat," which effectually anticipates its existence.

There are those farmers in Virginia, who raise from 300 to 2000 bushels of wheat. They use machines operated generally by horse power, which clean from 200 to 400 bushels per day. Smaller farmers making 100 to 300 bushels, pursue the old and clumsy method of "treading out" with horses.

Agricultural Prospects.

[FROM THE NEW-YORK STAR.]

We are very much pleased to learn, that notwithstanding provisions are at present high, the prospects of the next crop are every where flattering throughout the country, and not only are the fruits of the earth promising, but since the commencement of our troubles a great number of persons have embarked in agriculture, and have commenced tilling the earth, and planting grain of all kinds, and above all potatoes, the most valuable and healthy of farinaceous substances. Many of the planters of the South, we understand, have diverted a portion of their land from cotton, for the purpose of feeding their live stock, and in the West it is said the pork season will be an immense one. There is in this, room for reflection and gratification. It shows that in the midst of panic and calamity, the people of this country are not paralized, but are looking about to see how they can get a living for their families—the first, the most pressing and important consideration, and when they turn their attention to agriculture, when they depend on their own industry, and the bounties of Providence, they are sure not to be disappointed. The labor at the commencement may be painful for one not accustomed to it, but the result will be sure to compensate him. A friend who has been travelling through some of the river counties in his little wagon, told us that while passing at an easy pace over a turnpike which run through a delightful and thickly settled country, he was awakened from a fit of thoughtfulness by some person crying out, "holloo, stranger, what brings you here?" On looking up, said he, I discovered an old acquaintance, actually a Pearl street jobber, celebrated for his business habits and enterprise. He had on a huge straw hat and a linen jacket, and was leaning on a fence which enclosed a neat frame house, surrounded by barns, crib houses, and other farming conveniences. Fields of grain waved luxuriantly around him—orchards, a vegetable garden, a cider press, poultry, and some cows were straggling near the premises. "So you have turned farmer, given up calicoes and domestics—got out of the dust of Pearl-street, and the vicinity of Banks?" "To be sure I have. I did not wait until the panic reached me; and finding that twelve and eighteen month's credit, four thousand dollars store rent, a house in Clinton Place, and other etceteras, would not provide for a wife and six little responsibilities, I collected my small means together, bought this snug farm, and here am I one of the people. Come in and dine with me, it is almost one o'clock, and you shall have some fried chickens, bacons and greens, a few fresh eggs, peas, potatoes, cauliflowers, turnips, cherries, strawberries, &c. &c., all the produce of my farm—no laying out five dollars per day in Fulton market, my boy. I want no money at all here; have got good cider, and brought up with me cof-

fee, tea, and sugar, for a whole year's supply, besides a few bottles of the old stuff—come in." There is real practical philosophy in this, and we wish it was closely followed up by others. A few thousand dollars saved from the wreck of an estate, which in a year would be swallowed up by the actual expenses of the city, would, if judiciously appropriated in the country, make a family happy and independent for life. Let our readers think of this.

Diseases of Neat Cattle.

[FROM THE CULTIVATOR.]

Diseases in cattle, like those in man, are more easily prevented than cured. The best preventives are a plenty of wholesome food, dry pastures in summer, dry and clean sheds or stables, or well littered yards, in winter, and an ounce of salt per diem to cattle and horses, and a quarter of an ounce to sheep. Salt augments the nourishment of the food eaten, improves the wool, and prevents disease.

But disease will come. Many cattle die annually among us; and such is our ignorance of the cause and nature of their diseases, that in our attempts to cure, we often kill. Instruction in the anatomy and diseases of horses and cattle, constitutes a distinct branch of education in Europe, and the veterinary surgeon holds there an important rank in the scale of science and of usefulness. Here the business has few practitioners above the grade of quack cattle doctors. We profess but little practical knowledge in the matter; but as we have often been applied to for advice, we have turned to our best authorities, and shall now give the symptoms, and mode of treatment, of some of the prominent disorders to which neat cattle are incident.

Remarking on the analogy between men and brute animals, Lawrence observes, that regular medical men can be alone qualified for the cure of diseases in our domestic animals; and he declares that *all "infallible receipts are infallible nonsense."* The "receipt of prevention," he adds, "is worth more than all the infallible cordials and medicines ever advertised. It should be considered, that animals living in a state of nature, regulated by the reason and experience of man, would be almost exempt from disease. That their appetites, unlike our own, may be held under a constant control. That their diseases result purely, even in case of hereditary defects, from the negligence or erroneous treatment of their owners. They are either exposed too much to the rigors or changes of the weather, or they are gorged with food, denied a sufficient quantity, or supplied with such as is unwholesome. Here we have the chief causes of their maladies. *Learn to prevent them*, instead of undertaking the tedious, unsuitable and hopeless task of learning to cure them."

Omitting the notice of extraordinary fevers and colds, produced by over exertion, sudden changes of weather, and exposure to cold winds —for which bleeding, warm stimulating drinks, and stabling are prescribed, we pass to

PERIPNEUMONY—PLEURISY—INFLAMMATION OF THE LUNGS.—*Symptoms.*—Dry, painful cough, hot breath, laborious perspiration, sometimes a ropy discharge from the mouth, the hide feels hard, constringed, and burning hot. This is another variety of disease from suppressed perspiration, generally occurring in the autumn or early

spring, in hilly or exposed situations, on a sudden change from heat to cold, or during a long continuance of northeast winds. The *cure* consists in bleeding and cooling medicines, administered in the house [stable] where the animal may be kept from the weather, the original cause of the disease.—*See Lawrence on Cattle.*

THE YELLOWS.—This disease in cattle usually originates in hepatic, or liver obstruction, from cold; however, always from obstruction, which is most effectually opened by mild mercurial purges, notwithstanding the beast may appear weak and hide bound. *Symptoms.*—A general tremor over the animal in the morning, particularly in the hinder legs, loins and thighs; the eye-lids appear hollow; the whole body assumes a yellow cast; the nose is dry, and the ears often hang down; the dewlap, shoulders and loins swell; the udder of cows becomes tumefied, and produce little milk, which, in a few days, acquires a peculiar yellow tinge, coagulating when boiled; and lastly, the fore teeth become loose. The disease, if not speedily attended to, will in a few days settle in the interior parts, and induce murrain, dropsey, or other fatal disorder.—[*Willich.*] Take the patient to the barn, the earlier the better, and if he remain weak after two or three purges, give steel beer, milk warm, a pint twice a day, and good keep. One gallon of good beer, three or four ounces of iron filings, infuse in a stone bottle corked up three or four days, shake daily.—[*Lawrence.*] Purge two or three times with calomel and jalap, 40 grains of each.—[*Cooper.*]

MURRAIN.—This term corresponds with that of the plague, in the human species, and the diseases have a similar origin, namely, in putrid *miasmata*, or vapors inspired or drawn into the noses or mouths of animals, which animals being infected, acquire the power of infecting others by their breath or perspiration. The regular exit of the disease is in the eruption of suppurating biles or buboes, and the care of the physician is to prevent a fatal result the while from mortification. *Symptoms.*—Decrease of appetite; poking out of the neck from difficulty of deglutition or swallowing, shaking the head, hanging down of the ears and deafness; dullness of the eyes, moving about restless. About the fourth day, stupidity, unwillingness to move, great debility, total loss of appetite, running at eyes and nose, sickness, throwing up bile, husky cough, and shivering. Head, horns, breath very hot, body and limbs cold. Fever continual first three days, now rises; pulse quick, contracted, uneven. Constant *diarrhæa*, or scouring of fœtid green dung, stinking breath, nauseous steam from the skin, infecting the surrounding air. Blood florid, hot, frothy. Urine high colored. Roofs of the mouth and barbs ulcerated. Tumors or balls are felt under the fleshy membrane of the skin; eruptions all along the limbs, and about the bags of the cow. Milk dries up suddenly. Purging more violent. These symptoms continue increasing until the seventh day, on which, generally, although sometimes protracted till the ninth, the crisis, or turn, takes place.—[*Lawrence.*] The murrain is occasioned by various causes, but principally by a hot, dry season, or a general corruption of the air. The remedy employed during a general prevalence of this distemper in Europe, both for its prevention and cure, consisted in a mixture of equal parts of gunpowder, salt, soot, and brimstone; one spoonful of this composition was given for a dose, and washed down with warm water. All carron should be speedily buried; and as the feeding of those useful animals in wet places, or on rotten grass or hay, frequently causes this malady,

their food ought to consist of dry and sweet fodder.—[*Willich.*] A correspondent of the Farmers' Cabinet says, "there are two processes recommended for the cure of the murrain in cattle; one of them is to give the animal one pint of spirits of turpentine, and in twenty-four hours afterwards, a pint of olive oil or hog's lard; in forty-eight hours afterwards, half a pint of spirits of turpentine, and in twenty-four hours after this, half a pint of olive oil or hog's lard. The other is to give a pint of flax-seed oil, and in two hours afterwards two pounds of glauber salts, followed immediately by repeated doses of warm water for ten or twelve hours."

Destruction of Insects.

[FROM THE GARDENER'S MAGAZINE.]

Extract of a letter from Mr. Spence, the Entomologist.

"How often does one enter a garden with the cabbages all dissected to shreds, by caterpillars, and the owner inquiring of every one for some recondite mode of killing them; when, if he would offer two or three lads a penny a quart for all they could pick off, his cabbages would be cleared of every assailant in a few hours; and in the same way he might have the aphides crushed off any plant particularly valuable, and the caterpillars collected from the gooseberry bushes, by shaking them suddenly over two or three newspapers laid round them. Even on a large scale, it might be worth trying, if it would not answer to employ the boys to brush them off, with some light kind of whisk, the aphides from hops, when extensively attacked, on sheets spread out below, when they could be easily collected and destroyed: and if a few thousand ducks can clear a district of turnips from the blacks, there seems no reason (seeing that, however fast the ducks gobble, their stomachs have no great capacity, and must therefore soon be filled,) why an array of boys, collected from the neighboring villages, might not clear the land quite as effectually, and with little greater cost, in the end.—The mischief is, that in England, [and America too,—*Cond.*] we are prone to take it for granted that certain evils are irremediable, without ever fairly trying to remove them. Thus, if our hedges or trees are generally and extensively infested with caterpillars, we should laugh at the idea of getting rid of them by manual operations; and yet the French and Belgians, in similar cases, constantly employed such means; and, in fact, the municipal authorities every year enjoin, by printed notices and fines for non-compliance, on the proprietors of the land, *echeniller* to cut off [the points of the shoots infested] their trees. Even the very Turks (in such matters less fatalists than ourselves) have the good sense to send out whole armies to collect locusts, and to destroy them, (as mentioned in the papers in a recent instance) by thousands of bushels."

Practical Results of a Silk Grower in the Connecticut Valley.

[FROM THE NORTHAMPTON COURIER.]

Having visited the establishment of Mr. Timothy Smith, of Amherst, South Parish, I was delighted with it as a whole, and particularly with the location of his humble unpainted but neat farm-house, a short distance from a row of beautiful shade trees in front; then his

garden, teeming with an abundance of such vegetables as should always be found on the farmer's table. In this garden were numerous beds of the most approved kinds of mulberry seedlings; and then his nursery of White mulberry, in hedge rows of 5 or 6 years of age, 2400 in number, on about half an acre of ground, affording sufficient food for 150,000 worms, exclusive of his multicaulis foliage. His cocoonery was next visited, being the upper story of a building in his barnyard, commonly called the cow-house. On each side of the upper part, were set slit work posts at suitable distances apart in the row, verging nearer together at the top than the bottom, so that the bottom shelves might be wider than the top, and prevent the worms falling to the floor. There were six and seven tiers of shelves, made of rough boards, on each side, from 36 to 38 inches wide, and one foot apart, on which the worms are fed, and when ready to wind or form cocoons, a small number of straws, 25 to 30, forming a bundle of about half an inch in diameter, cut even at each end, and tied about two inches above the bottom, and then set across the shelves, in regular rows, 8 or 10 inches apart, the tops reaching to the under side of the next shelf, and the straws being spread out, afforded a convenient lodgment for 20 or 30 worms to spin their cocoons in a compact form, on the under side of each shelf, spun so close together, that the floss of one helped another worm to part of a nest, and prevented that great waste of silk into floss sometimes seen about cocoons, and must greatly contribute to the formation of silk threads instead of floss, and therefore must be a useful and economical improvement, above the old mode of winding cocoons on bushes, more cleanly, less waste, and easily separated from the straws.

The shelves can be put up at a trifling expense, in any outbuilding or garret of the house; two expert hands might set up in one day, a sufficient number of shelves to accommodate 200,000 worms. In another building, skirted with multicaulis trees and cuttings, was witnessed the operation of reeling silk from cocoons of this year's growth, and were shown a considerable quantity of reeled silk, which would do credit to any country whatever. Mr. Smith intends to manufacture his silk into sewings, although the present year is a year of experiments, yet the bounty of this commonwealth is so liberal as to cover all the expense of gathering the leaves, feeding, reeling, &c., excepting the board of two females, and probably another year the bounty would defray every expense, so that every pound of silk would be a clear profit. Mr. Smith has fed about 250,000 worms from his half acre, and is a confirmation of what has been said, "that a clear profit of 300 dollars might be made from an acre set with mulberries." The experiment made and now making, is precisely that which is wanted to encourage our farmers to engage in one of the most lucrative and pleasant branches of husbandry. Those in this vicinity who contemplate immediate engagement in the silk business, would be well paid for the trouble of a visit, while the worms are winding and silk reeling.

Utility of Lime in preserving Fence Posts.

[FROM MEMOIRS OF THE PHILA. SOCIETY.]

Accident in some instances, has led to the discovery that lime applied to wood, preserves it from decay. The white-washing of fences is practised, more as a substitute for paint, and for appearance sake, than to prevent decay. Even this superficial mode of applying lime is of some use in preserving wood. Having full confidence in the efficacy of lime, as a preservation of wood, to make fence posts less subject to rot, I have this season, for the first time, used it as follows:—I provided a number of narrow boards, about three feet long, of various breadths, and one inch thick, with a hole in the end of each. When the hole in the ground was ready for the reception of the post, some lime was put into it; on this lime the post was placed: some of the narrow boards were then selected, and placed to and around the post in the hole. The ground was then rammed into the hole after the usual manner, and when filled, the boards were drawn out. This is done with greater facility, by putting a stick into the hole in the upper end of the board, by which it may be raised by a lever or prise, if too fast to draw out otherwise. The boards being all removed, fill the space they occupied with quick lime: if but partially, it is better than if totally slaked, because as it slakes it will expand and make the posts stand very firm. If altogether slaked, it also swells and makes the post quite secure. From three to five posts with hewn or uniform butts, will require one bushel of lime. Boards to surround the post half an inch thick, (and perhaps this thickness of lime may be sufficient) would not take half that quantity. The lime is all the additional expense, except the extra labor (which is very trifling) to be incurred by setting a fence, with that part of the posts in the ground enveloped in lime.

To prevent the ground from adhering to the posts at the surface, and occasioning their decay, this part being the one which generally first begins to rot, lime mortar is applied, plastering round the posts with an elevation adjoining to the wood. Into this mortar, gravel was pressed to prevent the rains from washing it away. This mortar may be applied at any time most convenient after the fence is made.

Agriculture &c.

[FROM THE CONNECTICUT OBSERVER.]

If one consequence of the present "pressure" shall be to engage men more generally in agricultural pursuits, surely our sorrow will endure but for a short night and joy will come in the morning. Though it be ordained that by the sweat of his brow the farmer shall obtain his bread, yet his health and happiness are greatly promoted by the same wise provision, and no other occupation will ensure for him the same independence and ease of mind. The eyes of this class of men have been too much attracted by the false show of ease and success which appear to attend those engaged in other pursuits. They have seen them rise apparently without labor or much exertion to high stations, or to the possession of wealth. but they have not noted those who were disappointed: nor have they seen the sacrifice of principle,

the loss of peace and health, the harrowing uncertainty, the wear of body and spirit with which in many cases that honor or wealth has been purchased. Owing to this cause we have now a superabundance of professional men and merchants, whose talents would not be sufficiently brilliant to enable them to rise to eminence if their services were required by the community, but who, as the case is, must resort to shifts to obtain a livelihood,—while had they remained at home, tillers of the soil, they might have been happy and useful. We would not insinuate that there are too many clergymen in our country, but surely one destined for the sacred office should be in intellect a *man* and "thoroughly furnished unto good works."

The articles which appeared in the Observer respecting the dignity of agriculture, urging our farmers to decorate their dwellings and the contiguous grounds, and to mingle more in rural sports, deserve attention. Why may not all the farm houses in our country present a light and neat appearance? Why may we not see the woodbine and honeysuckles encircleing them, and the rose and other garden flowers blooming around them? Why should not the fair daughters of our farmers turn their attention to this matter; and ceasing to imitate the imported follies of our city fashionables, bestow some of their time upon the delightful and healthful employment of rearing and training flowers: tracing in them the wonderful evidences of the Creator's goodness and wisdom; acquiring a love for what is beautiful in nature; and thus while they add to the pleasure of others, increase their own charms of body and mind? It is elevating and ennobling to study nature as displayed in our gardens and fields. Food for abundant meditation lies hid in all vegetable productions, and those who expose to view in an attractive manner the beauties with which our earth is or may be clothed, besides opening a source of enjoyment to themselves, do something to improve the tastes, and perchance the hearts of others.

Agricultural pursuits are certainly not inconsistent with high attainments in science, for no class of men have such oportunities of becoming *practically* scientific as husbandmen. A regard to their pecuniary interest alone should lead them to some acquaintance with Geology, Mineralogy, Chemistry, &c.

It is to be lamented that our young men of all clases are not better acquainted with the political history and constitution of our country Those who exercise the privileges of freemen. and to whom the highest offices are open, should feel their accountability to vote or legislate *understandingly*.

Physiology is a study that would also be very serviceable to young husbandmen. Is it not true of us as a nation, that we are prematurely shriveled and bowed down? How seldom do we see, especially among women, a good specimen of the human form at middle age:—and is it not owing mainly to the neglect of proper physical and mental culture? Having at our command the means of obtaining not only a subsistence, but a competency, and finding the field of enterprise before us almost boundless, we devote our energies of mind and body untiringly to the pursuit of wealth, until mind and body fail. Unlike most other nations, we have no artificial distinctions of society through which we cannot break; hence we are seldom contented. It would be more becoming us to moderate our desires, and endeavor to derive some rational enjoyment from life as it passes away. Doubtless it is wrong and sinful to neglect our proper business, but it is also

wrong to neglect attention to health, and the cultivation of a cheerful disposition. The exercise of temperance, *simplicity* in diet, a moderate indulgence in athletic sports, the study of the word and works of God, and of the beautiful in nature and art, crowned with profession and *practice* of the christian religion, would go far to make our agricultural population the happiest people on earth.

Among other sources of enjoyment, that of music performed in the open air would not be the least, if properly cultivated. A collection of secular music called the Odeon, might be serviceable for this purpose. It is a recreation in which both sexes can engage, but none should attempt to sing who have not a good knowledge of the rudiments of music. In almost every village, at least one good performer on the flute can be found, and a sufficient number of singers to form a good choir. A suitable grove is always at hand, in which they could assemble—and many who could not sing, would doubtless be glad to listen. Let but the experiment be tried, and it will prove not only a means of happiness, but of improvement. The effect of such meeting, if properly conducted, would be highly beneficial to the manners and feelings. The time of assembling would be anticipated with interest and delight; the shady retreat dedicated to harmony and concord would be left with regret, and the hours there spent would never be recalled in after life but with a thrill of pleasure.

Conversation.

[FROM DICK ON THE IMPROVEMENT OF SOCIETY.]

There is nothing more grating to the man of intelligence, than the foolish and trifling conversation which prevails in the various intercourses of social life, even among the middling and the higher circles of society, and in convivial associations. The ribaldry and vulgarity, the folly and nonsense, with the many degrading methods of 'killing time,' and the laughter of fools which too frequently distinguish such associations, are a disgrace to our civilized condition, and to our moral and intellectual nature. Without supposing that it will ever be expedient to lay aside cheerfulness and rational mirth, the lively smile or even the loud laugh, it is surely conceivable, that a more rational and improving turn might be given to general conversation, than what is frequently exemplified in our social intercourses. And what can we suppose better calculated to accomplish this end, than the occasional introduction of topics connected with science and general knowledge, when all, or the greater part, are qualified to take a share in the general conversation? It would tend to stimulate the mental faculties, to suggest useful hints, to diffuse general information, to improve science and art, to excite the ignorant to increase in knowledge, to present interesting objects of contemplation, to enliven the spirits, and thus to afford a source of rational enjoyment. It would also have a tendency to prevent those shameful excesses, noisy tumults, and scenes of *intemperance*, which so frequently terminate our festive entertainments. For want of qualifications for such, conversation, cards, dice, childish questions and amusements, gossiping chit-chat, and tales of scandal are generally resorted to, in order to consume the hours allotted to social enjoyment. And how melancholy the reflection, that rational beings capable of investigating the laws and pheno-

mena of the universe, and of prosecuting the most exalted range of thought, and who are destined to exist in other worlds, throughout an endless duration—should be impelled to resort to such degrading expedients, to wheel away the social hours!

Domestic enjoyment may likewise be heightened and improved by the studies to which we have adverted. For want of qualifications for rational conversation, a spirit of listlessness and indifference frequently insinuates itself into the intercourses of families, and between married individuals, which sometimes degenerates into fretfulness and impatience, and even into jars, contentions, and violent altercations; in which case there can never exist any high degree of affection or domestic enjoyment. It is surely not unreasonable to suppose, that were the minds of persons in the married state possessed of a certain portion of knowledge, and endowed with a relish for rational investigations—not only would such disagreeable effects be prevented, but a variety of positive enjoyments would be introduced. Substantial knowledge, which leads to the proper exercise of the mental powers, has a tendency to meliorate the temper, and to prevent those ebullitions of passion, which are the results of vulgarity and ignorance. By invigorating the mind, it prevents it from sinking into peevishness and inanity. It affords subjects for interesting conversation, and augments affection by the reciprocal interchanges of sentiment and feeling, and the mutual communication of instruction and entertainment. And in cases where malignant passions are ready to burst forth, rational arguments will have a more powerful influence in arresting their progress, in cultivated minds, than in those individuals in whose constitution animal feeling predominates, and reason has lost its ascendancy. As an enlightened mind is generally the seat of noble and liberal sentiments—in those cases where the parties belong to different religious sectaries, there is more probability of harmony and mutual forbearance being displayed, when persons take an enlarged view of the scenes of creation, and the revelations of the Creator, than can be expected in the case of those whose faculties are immersed in the mists of superstition and ignorance.

How delightful an enjoyment is it, after the bustle of business and the labors of the day are over,—when a married couple can sit down at each corner of the fire, and with mutual relish and interest, read a volume of history or of popular philosophy, and talk of the moral government of the world, the arrangements of Providence, and the wonders of the universe! Such interesting conversations and exercises beget a mutual esteem, enliven the affections, and produce a friendship, lasting as our existence, and which no untoward incidents can ever effectually impair.

Ploughing in Wheat.

[FROM THE MAINE FARMER.]

We have long been of the opinion that the farmers of Maine did not work or stir their land enough. Mr. L. Whitman, of Winthrop, has related to us an experiment which goes to prove the importance of using the plough more, and of covering wheat when sown more effectuallly than it is done by the harrow. Last year he ploughed up a piece of sward land, that had become bound out, as it is called, and sowed upon it Peas and Oats. He had a fair crop. Late in the fall

he ploughed the piece again. In the spring he ploughed it once more and harrowed over, he then put the plough through it again, making three times in all. When he had ploughed a part of the land the last time, he concluded to sow wheat on the remainder, and plough it in. This he did; and afterwards sowed wheat upon the first ploughed piece, and harrowed it in. He also passed the harrow over the piece in which the wheat had been ploughed, so that the whole of the land was used alike. He put ashes to the amount of ten bushels to the acre upon the whole piece. The result at harvest was, a good crop on the whole land, but a decided advantage in the piece where the wheat was covered by the plough. It yielded more per acre than the wheat covered by the harrow.

Profit of Keeping Poultry.

[FROM THE BOSTON ATLAS.]

Mr. Editor,—I send you an account of my success last year in keeping hens, and will thank you to publish it, to let people know how many eggs a hen lays in a year. I heard much speculation on the subject, and last year I kept an account, which is as follows:

On the first of January, 1836, I had ten hens, and one good crower. In the spring, I suffered three of them to go through the process of incubation, which left me seven to make my experiment upon. The three which raised chickens, gave twenty-four in number, which I sold for a shilling each, when they were about the size of quails. The sooner you sell your chickens the better, for they will not bring but 2 or 3 cents more when full grown, than when half grown.

When the year was out, on the first of last January, I looked over my account, and found my seven hens had given me ninety-six dozen of eggs, which were sold for $15 91. What we had used in the family, made the whole quantity one hundred and ten dozen. The lowest price I sold any for, was 13 cents per dozen—and the highest was 25 cents. I have asked many farmers to guess the number, but they have always came short of it.

They asked me what I gave them to make them so prolific. I inquired how they treated theirs, what they gave them to eat, and where they rested at night. They told me that they let them rest in barns or on apple trees—not giving much except what they can pick up around the house and barn. They think warm dough will freeze in their crops, and kill them in cold weather.

Now I'll tell you how I keep the hens. I cause a good house to be built for them in the south side of a hill, and stone it up so warm that an egg will scarcely ever freeze. During half the time in the winter, I give the hens boiled potatoes and bran or meal, mixed together with a little warm water. I never lost any hens in consequence of dough freezing in their crops, if they have a good warm house to set in, dough will not hurt them any more than warm cakes will a man. For the remainder of the time, I gave them oats instead of corn. I have bought oats in Boston for seventy cents a bushel, while corn was, at the same time, one dollar and ten cents, and tried the hens on the oats and then on the corn. Before feeding the hens, I would let the oats soak in warm water for three or four hours, till they get well swelled, and in this way I found that a bushel of oats

would go as far as a bushel and a half of corn; thus in using oats instead of corn I saved 95 cents on every bushel consumed.

Hens will dust themselves every day when they can get dry dirt. In winter, when they cannot, I place a large box of coal-pit dust in their house and keep it dry, so that it cannot freeze; this answers every purpose.

Hens should never be kept near cattle, for their vermin will escape to the cattle, and prevent them from growing fat.

I preserve all the pieces of white earthen ware that I can find, and when the ground is covered with snow, I pulverize it and give it to them. I find they will eat it in preference to corn. Water is always placed within their reach.

Last year, according to the best of my calculation, the cost of keeping my ten hens was $9. I sold the eggs to the amount of $15 91 cents, and chickens to that of $4—leaving a net profit in one season of $10 61. Besides this, 11 dozen of eggs, worth a shilling a dozen, were used in the family.

Why am I not a Rich Man!

[FROM THE NEW-YORK STAR.]

"Why am I not a rich man?" said a very intelligent person to us, while looking at a splendid equipage which rattled down Broadway. It was the equipage of a man of wealth—a man of yesterday; a *parvenu* in the more fashionable phrase, who made a fortune suddenly by buying farms and selling them out in lots, and who was determined by the splendor of his house, the magnificence of his entertainments, the richness and variety of his liveries, his loud talk and consequential air, to shew that he did not belong to the quiet families of some hundred years of distinction and wealth, who never offend by ostentation, or exhibit a heraldry to which they are not entitled. We gazed at several of similar growth; whose riches sprung up over night like Jonah's gourd—some by speculation, others by succession; some by fortunate marriages, and some more creditably by mechanical labor and ingenuity. "Why am I not a rich man?" said my friend. "I must purchase land somewhere in the West, or in the moon,—no matter where; I must plunge in the current of speculation, and swim on to fortune and eminence. I must be rich—every body tries to be rich, why shall I not be rich? I am liberal in my disposition, hospitable and free. I should like to have such a coach and pair—a house of corresponding magnificence. I should like to throw it open several times yearly, for the gay and fashionable throng—I should like you to dine twice a week with me, and punish a few bottles of old, very old, Madeira. Why am I not rich? I deserve to be rich; I must be rich," said he, musing, and at intervals dropping his voice as he slowly withdrew his eyes from the long cavalcade of coaches and phætons and whiskered footmen.

Hundreds, no doubt, thought as he did; hundreds expressed the same feelings and felt the same desires, and all under the delusion that money is wealth—that sheer palpable gold and silver constitute riches; and it is under this delusion that thousands of our citizens are racking their brains by night, their thoughts by day, toiling and sweating, and managing, and twisting, and turning out of the common, set-

tled and regular order of things, to get gold aed silver, under the impression that with their possession they will be rich. Statesmen, politicians, nay the government itself, is inoculated with the same mania, and if all could succeed, we shall be compelled to blacken our own boots, and wait upon ourselves at table. The delusion, however, consists simply in this—in considering a piece of gold the only representative of wealth, and disregarding what we in ourselves possess, which is an equivalent to wealth. We are for the most part rich without exactly knowing it. The anvil of the blacksmith is to him, with his handicraft, a valuable weighty lump of gold—he lives by it, and to his mind, habits and wishes, as well as he lives who pays out his eagles and half eagles in the market. So with the painter—so with the professional man, the sculptor, the musician, the man of talent, all who possess the means of acquiring wealth are actually wealthy; for if temperate and industrious, all their faculties are convertible materials into wealth—nay, are more valuable and durable and available, than the mere man of gold and silver. Let such a man swim to the shore from his shipwrecked vessel, with the mechanic and the man of mind, and see who can succeed in earning that morsel of bread necessary to sustain life. What does the man of princely income do, which gives to him so many supposed advantages, and opens the door to so much mooted happiness? He rises late—turns day into night—dawdles his time away in trifling finikin employments—drives his horses and dogs—gives grand dinners for ostentation, and large parties for fashion, and is at best a poor, discontented, dyspeptic, respected only for his gold and silver, and of no possible use to the community. Take the man of moderate means, and he employs life as life ought to be employed—a mixture of employment and recreation of rational pleasure and discreet hospitality; go down to what is called the poorer classes, but which we call the substantially rich—the hardy mechanic, and see how he enjoys life.

Rising with the sun, his labor does not cease until the sun sinks into the west. He returns to his little family and snug tenement at night, and finds an ample board spread by a frugal wife, the smoking steak, the good cup of coffee, the white bread and butter, and an appetite sharpened by labor. His repast over, he takes his chubby boy on his knee, pinches his dirty, rosy cheeks, and runs his fingers through his matted hair—talks with his wife on household affairs, reads the paper, or converses with his neighbor on the best means of saving the commonwealth, and when the hour of rest arrives, he stretches himself on his hard, but healthy bed, and soon his senses are steeped into forgetfulness, and his sleep is sweet and sound, until the shrill clarion of the cock awakens him on the morrow to renewed labor.

But then he has no coach. Has he not? He has only to go into the street and hold up his finger, and a splendid omnibus and four elegant horses drives up to the side walk, and he jumps in—it is his coach while he occupies it, and he leaves it when and where he pleases. Can the man of gold and silver do more? It is all an error, a misconception, a delusion. We are all rich when we possess within ourselves the means of acquiring wealth. We have no poor, except the idler and the drunkard.—*Noah.*

The Moral and Political Health of the State, depend, in a high degree, upon the intelligence and industry of the country.

[FROM THE CULTIVATOR.]

Land and labor are the legitimate sources of public wealth. The first, to be productive, must be cultivated; and the labor of doing this is abridged by the culture of the mind, which is to guide its operations. But labor not only procures wealth and the comforts and elegancies of life, but it induces. when aided by an intelligent mind, sober moral habits, and begets independence of mind as well as of fortune. Idleness, not industry, is the parent of vice and of riot. This seeks to bring merit down to its own level. Industry looks for fortune in the profits of its labor; and for the enjoyment of it in the peace and quiet of society, and the general prosperity of the state; and tends, by its example, to elevate and reform. Neither an intelligent individual, nor a well formed industrious community, are prone to mingle in the vices and tumults of the day. Hence the more intelligence we infuse into labor, the more abundant will be its products—the more honorable its calling—the more numerous its subjects—and the sounder the condition of public morals. Knowledge and industry combined, if not synonimous with virtue, are at least a pretty good indication of worth and usefulness. Should not, then, the public mind be more enlightened, that virtue may more abound.

In a government constituted like ours, which confers on all the same political rights—the same facilities for public instruction should be extended to all, that all may alike participate in these advantages, and beeome qualified to execute the public trust. And the propriety of this rule derives particular force, when applied to the yeomanry and meahanics of our country, who, from their numerical force, must be the arbiters of our political destinies, and our shield from every danger. They are emphatically the sovereigns of the land. Their will *must* control, be it for good or be it for evil. The character of the government must receive its impress from them, and its prosperity and happiness be ever graduated by the measure of their intelligence, their industry, and their virtue. Attempts to establish republican forms of government, have failed in Europe, and on our own continent, by reason of the ignorance, and consequent impotence, of the middling classes—of the rank and file of population. Learning there has been restricted to the privileged few—whild the many have too often been debased to a servile condition, or have resorted to crime for a living. Power and wealth have tendency to corrupt the higher orders; ignorance and poverty, to debase the lower classes; which have jointly contributed to annihilate, or to render impotent, the great middling classes, which here hold the balance of power, aud who alone can perpetuate our republican principles. These, therefore, who are destined to wield their power, with us, should be well instructed in the rights and duties of freemen. It is a dictate of interest, as well as of justice, that our young farmers and mechanics—the future umpires in all political controversy—the conservators of public morals—should be better instructed;—that they seould be instructed in so much of science as may be useful in their calling, and as will enable them succesfully to compete with the products of foreign labor at our

doors—and so much in general knowledge as will fit them for the civil duties of society—so much as, with good habits, will qualify them for the duties of jurors, magistrates, legislators—and good citizens. The moral welfare of our state, and the perpetuity of our freedom, demand a higher grade of instruction in our comman schools, and the establishment of new ones, adapted to the improvement of all our great branches of productive labor.

Kreosote.

[FROM THE AMERICAN JOURNAL OF THE MEDICAL SCIENCE.]

For several years past, the dry distillation of organic substances has engaged the attention and exercised the interest of European chemists. This process consists in subjecting them when deprived of moisture, to a high temperature. By this means the elementary principles of the body are acted on; they enter into new combinations, so that the products are the result of its destruction or decomposition by heat.

In 1830, M. Reichenbach, a chemist of Blansko, whilst engaged in the investigation of this curious and interesting subject, discovered kreosote and five other substances, all of more or less value in medicine and the arts, and all products of the distructive distillation of vegetable matter. Kreosote however, is by far the most important of all these products, both on account of its chemical properties and its numerous practical applications. It was first discovered by Reichenbach in impure pyroligneous acid, and afterwards in all the tars. Its name is derived from the Greek *creas*, flesh, *sozo* I save.

It is an oily, transparent fluid, and when pure, perfectly colorless; its odor is very similar to that imparted to meat by wood smoke, varying however, according to the species of tar used in its manufacture. It is readily combustible in the atmosphere and burns with much smoke.

Kreosote has been succesfully applied to the preservation of fresh meats, and hence may become an important article in domestic economy. The meats intended to be preserved should be immersed in a solution of one part of kreosote in a hundred of water. Here they should remain from 12 to 48 hours, according to their size, when they are to be dried, either in the sun or before the fire, and afterwards set aside for six or eight days, at the end of which period they will be found to have accquired the consistence, appearance, smell and taste of the finest smoked meat.

Kreosote is probably the most efficient substance yet descovered for the preservation of dead bodies of whatever kind. Birds poisoned with it resist putrefaction for a great length of time, and the bodies of animals may be *mumified*, so as to keep them sound for an indefinite period, by immersing them in a solution of kreosote in water, or by injecting a mixture containing kreosote into the blood vessels.

And indeed from recent investigations, it has been ascertained, beyond a doubt, that the tarry and resinous substances from which kreosote is chiefly manufactured, were the very articles used by the ancient Egyptians in the process of embalming, and by means of which their mummies have been handed down to after ages—mementos of the science and skill of that gifted people, as imperishable and as wanderful as the pyramids themselves.

It is stated in the Asiatic Journal for February, 1836, that Lieut. Col. M. C. Bognol presented to the Royal Asiatic Society a human hand and a piece of beef, preserved by means of a preparation of vegetable tar found on the borders of the Red Sea, in the vicinity of Mocha. The Bedouin Arabs with whom he conversed on this subject, were of the opinion that this vegetable tar, called in the language Katran, was the article chiefly depended on by the ancient Egyptians in the process of embalming. They also believed that large quantities of camphor, myrrh, aloes and frankincense were used, but these are evidently not essential, as tar alone penetrates and discolors the bone. The only use now made of this tar is a plaster or ointment for the sore backs of horses and camels, rot in sheep, and lastly, in the preparation of the heads of criminals sent from the distant provinces to the seat of government. The tar is obtained from the branches of a small tree or shrub, which is found in most parts of Syria or Arabia Felix.

The process by which kreosote is produced is complex and difficult: that of Reichenbach has been simplified and improved by other chemists. The following is the mode commended in the "*Annales de Chimie et de Physique*," of July, 1835, by M. Koene. The tar derived from pit coal, is distilled in a retort provided with a long tube, having a large mouth. Under this is placed a receiver. The oil which comes over first swims on water; and it is necessary to remove from time to time the products of the distillation, till an oil is obtained which sinks in water. When this is found to be the case, the product is collected. The heavy oil obtained during the distillation condenses not only in the receiver, but also in the tube of the retort, where it unites with the napthaline, forming a buttery substance. By applying a general heat, the mass will drop into the receiver. The product is now allowed to remain in a cool place for some hours, after which it is pressed. The expressed napthaline still contains oil, which is separated by heating it with its own weight of acetic acid till it melts. After allowing it to cool, the chrystallized naptha is pressed; and the acid adhering to the kreosote is saturated with sub-carbonate of potash. The kreosote is now to be shaken for a quarter of an hour with phosphoric acid, the proportion being half an ounce of the acid to twenty ounces of the oil. The mixture ought then to be agitated with its volume of water, and afterwards distilled with a gradual heat, care being taken to separate the oil which floats on its surface. The rectified oil is now to be dissolved in its own volume of a hot solution of caustic potash of the specific gravity 1.120. When it has been allowed to cool for half an hour, the oil upon the surface is again removed, and the heavy oil again treated with the caustic potash, only a fourth part, however, of the solution being this time employed.

On uniting the solutions of potash, a slight excess of diluted phosphoric acid is added, and the free kreosote which floats on the surface is separated. It is again rectified; and the first product which is chiefly water, being rejected, the kreosote comes over quite pure.

Kreosote has now been a sufficient length of time before the public, to enable us to ascertain pretty certainly and accurately its real value as a remedial agent.

Reichenbach, among his first experiments, applied the kreosote to slight *scalds*, in which he found it eminently beneficial. In the treatment of *burns*, it has been employed in France, having, it is said, a remarkable tendency to cause the sores to cicatrize from the circum-

ference to the centre, thus preventing these irregular contractions, which often produce permanent disfigurement.

There is scarcely any disease, in which, according to the concurrent opinion of numerous physicians, kreosote has proved more beneficial than in the *toothache*. It has been employed on the continent for this purpose, ever since its discovery; and for the last two years, it has been prescribed very extensively in Edingburgh, and Dr. Cormack says, with great success. But unless there be a cavity in the tooth through which the kreosote may be applied to the nerve, as a general rule, no advantage will be derived from it. Where the pain is merely rheumatic, a solution of kreosote and water is highly useful, relieving more speedily, certainly, and for a longer time, than any other remedy.

Various explanations of the operation of kreosote in these cases have been offered, but none seem entirely satisfactory.

1. It has been supposed that the remedy produced its effect by destroying the nerve; to this it has been objected, that if the nerve were destroyed, the pain would never return, whereas, in most cases, the pain returns after a considerable lapse of time. But the destruction of the nerve, it may be rejoined, may be partial only, sufficient to paralyze its sensibility for a while, but not sufficient to prevent a return of this sensibility.

2. The kreosote may unite chemically with the albumen of the fluids, which are always exubing from a carious tooth, and thus form a crust to protect the nerve from the action of the atmosphere.

3. It may perhaps afford relief by stimulating the loaded vessels of the nerve, causing them to contract and expel the blood with which they are surcharged.

The best method of introducing the kreosote, is by means of a camel's hair pencil. After this has been done, the cavity should be filled with cotton saturated with pure kreosote, care being taken, if possible, to prevent any adhering drops from touching and irritating the adjacent soft parts. If this should happen, however, the pain is but momentary, and is not attended with any serious consequences.

Dr. Elliottson has published several interesting cases of *cutaneous diseases*, in which the kreosote has effected a cure after various other means had been tried in vain. It has also been recommended in *chilblains*. Dr. Halm. of Stuggart, says, that whether they are ulcerated or not, he accomplishes a cure in the course of a few days with a solution of kreosote in water. Several cautions should be borne in mind, in the application of kreosote to ulcers. It is of great importance in regulating the strength of the solution, to remember that water dissolves only one eightieth part of its weight of kreosote. If a small excess of kreosote be present, it will float on the surface in the form of minute globules; and, of course, when the lint or brush is dipped in the solution, these globules will adhere, and thus a much stronger preparation than was intended will be used.

Of all the beneficial effects of kreosote, however, there is probably none more important than its power of *allaying the irritability of the stomach*, and of controlling the most obstinate cases of nausea and vomiting. Its power, in affections of this character, (says Dr. Cormack) exceeds all other known remedies; and Dr. Elliottson says, that he never knew it to fail to arrest vomiting, proceeding from functional derangement merely. Dr. E. also prescribed it with great advantage in a case of vomiting from arsenic; and several times successfully for "sea-sickness."

Marl.

[FROM THE YANKEE FARMER.]

We have been requested to give information so that farmers may know marl and its effects, and how to apply it to the soil. We publish an article on this subject, commencing on the first page of this paper.

A writer in the present volume of the Yankee Farmer, page 195, wishes to know how he may know marl if he should find it—when and how it may be found—what it looks like—feels like, smells like, tastes like, &c.?

Marl is often found in flat lands where water stands. Sometimes by the side of rivers, under sand banks. It looks something like fine clay, but is usually of a lighter color. It has a greasy feel similar to clay, but it is not tenacious and cannot be made into mortar, as it crumbles like chalk. It has no smell of itself, but it may imbibe an odor from some vegetable or mineral substance. When dry it tastes much like chalk. Marl is an excellent manure, and it can doubtless be found in many parts of the country where it is not now known. Farmers, attend to this subject, many of you have upon your own farms substances with which you may enrich them, and add greatly to your income. We have seen in many parts of the country, particularly when sand hills have been dug down in making woods, a clayey substance, resembling marl, that may be easily pulverised when dry, which would be a good manure to apply to sandy soils that usually abound in the vicinity.

Rearing Hogs.

[FROM THE TENNESSEE FARMER.]

There is an inveterate antipathy in the constitution of human nature to any departure from the beaten way of old habits and hereditary usages. This is more observable, perhaps, in the agricultural than in any other class of the community. "The way my father did before me," seems, with a great many, to justify any folly and mismanagement, and to exclude, forever, all hope of, or stimulus to, enterprize and improvement. We would qualify this censure, however, with an expression of our firm belief, (and we rejoice at the fact) that there is a gradual and evident improvement in the agriculture of East Tennessee. It must of necessity be so, if we would not starve. The original vigor of our soil has been wofully diminished by the exhausting crops of its early culture, and he who is not *beginning*, at least, to improve his land and use some little stratagem in the rearing of stock, may live a life of labour without profit, and die in poverty at last.

If our farmers neglect any one portion of their duty more than another, I think it is in the rearing of hogs. The practice almost universally prevails of feeding this animal (when it is fed) throughout the year, on raw Indian corn in the ear; and the fact that they cannot be profitably raised in this manner, is so generally admitted and believed, that few attempt to rear them for sale, but those who have rich bottom lands, and make large crops of corn.

Now, I have no doubt that every ordinary upland farm can be made subservient to the rearing of hogs with great profit, at little or no expense of preparation, and with a yearly improvement of the soil.

As therefore, every one who finds fault with an existing system, should be ready to propose what he considers a better one in its place, I will suggest a general method which will embody the principles of my scheme, but which may be varied according to circumstances.

Have two or three clover-fields for your hogs in the months of May and June. Sow an early crop of oats, to ripen about or before the first of July, and also a late crop to ripen about the first of September, (I intend making the experiment if a third crop cannot be had to ripen in October, or the last of September) by sowing the ground of the first crop over again after it is eaten off. July and August your hogs will live in the grain stubble, especially if you leave some patches of your oats uncut—such, for instance, as have fallen down, or are mingled with briars or sprouts, a misfortune, alas! too common amongst us. While all this is going on, put up a cast pot or kettle of pretty good size in a little furnace, (which almost every farmer can do for himself) get a box or tub, bore augur holes in the bottom, set it on the kettle, and instead of turning your hogs into your apple orchard to get their teeth on edge, eating sour apples, steam them in this simple and cheap apparatus, and you will find that sour raw, and cooked apples, are totally different articles, as food for hogs. From this period, say the middle of September to the first of May, every farmer ought to be prepared to feed his hogs principally on apples, pumpkins, potatoes, artichokes, turnips, carrots, beets, or any other vegetable most easy of cultivation; all, however, boiled or steamed, and mixed, if thought advisable, with corn-meal, ground buckwheat or oats, or wheat bran. Hogs may also be fatted for market with almost any of these vegetables, feeding for ten days or two weeks previously to killing, on dry corn-meal or mush alone. If your vegetables should give out, then resort to your corn-crib, but not till then, and then feed the grain ground and cooked, by which means you can save the one half.

Now, no one doubts the superior strength of the Indian corn to any of the esculents; but the vegetables named will undoubtedly keep hogs in healthier condition than the corn alone; and in this way may make up for their want of strength, as food for the animal system.—Besides, they are most, if not all of them, of so much easier cultivation than corn—produce so much more abundantly, and some of them, instead of exhausting the soil as the corn crop does, will, I have no doubt (as the artichoke, for instance,) annually enrich it.

I would especially recommend to the farmer to gather his apples for this purpose. Almost every farm in the country has the necessary appendage of an apple orchard, and vast quantities of apples are every year wasted for want of care in gathering them, or put to a worse purpose even than this destruction. Make enough cider, therefore, for your own vinegar, and no more; but above all, pervert not the gifts of a kind Providence, by converting them into poison in the shape of ardent spirits, to ruin the souls and bodies of our fellow-men (a practice, I am rejoiced to say, no longer reputable in this country.) A large amount of corn may be saved by this substitute, and a fine quantity of pork or bacon brought to the market.

In conclusion, I would earnestly request my brother farmers to reflect upon this project of economy, and even to try its expediency by putting it to the infallible test of experiment.

ARATOR.

Boston Farm School.

[FROM THE NEW-ENGLAND FARMER.]

On the 26th ult. we enjoyed the pleasure of joining a large party of ladies and gentlemen, of Boston, in visiting the Farm School, on Thompson's Island, in Boston Harbor. We embarked in the steamboat Kingston, at 3 P. M. o'clock, and returned in the evening at seven, in the same pleasant conveyance.

In this short excursion we seemed to combine and to condense in an hour the enjoyments of an age. The beauties of a cool and bright day, the charms of the scenery in the harbor, the handsome happy faces, and respectable and agreeable society which honored the occasion: the paradise on the Island which art and industry had created, and caused to spring up before our eyes like Arabian fictions realized, were present in one charming assemblage. And the air, the motions and countenances of the spectators, awoke higher and nobler feelings of satisfaction than were ever indicated by "stupid starers and by loud huzzas."

The examination of the young cultivators (one hundred and four in number present,) or pupils of the Farm School, relative to their mental as well as manual pursuits opened new avenues of intellect; and developed resources for the pleasing as well as profitable employments of the human faculties, which are not dreampt of in the jug trot philosophy of some hoary headed hard workers. The pupils of Captain Chandler, Superintendant of the Boston School, gave evidence that they are little scientific characters, proficients in more useful arts than most who annex A. M. to their names, and can give more information relative to the theory as well as the practice of Agriculture and Horticulture than those lawyers we wot of, can tell us about Blackstone or the Revised Statutes. The different kinds of crops, and their relations, the classifications of vegetables into annuals, biennials, deciduous, evergreens, culmiferous, gramineous, herbaceous, ligneous bulbous, tuberous, &c., were all familiar to these pretty sages. Likewise the different sorts of soils, their mixtures and the crops best adapted to each. It appeared likewise that these little farmers knew as much about the practice as the theory of cultivation. Located in the midst of a farm of 140 acres, and under thorough culture, it is tilled almost altogether by these striplings, whom we should think are nearly, if not quite all under twelve years of age.

We were pleased also to learn that these farming boys were happy in their present vocation and employment; and none of them willing to exchange the field of the tiller for the counter of the merchant, the desk of the clerk, or any other pursuit of either a sedentary or a bustling nature, which those who do not know any better esteem preferable to that of husbandry. This predilection of the Farm School boys, (little men in a state of comparative innocence) of husbandry to all other occupations, would seem to indicate that the cultivation of the earth is not only the primitive occupation of man, but the most pleasant of human pursuits. We also were informed that some of these "swains of the field." could also turn their hands to the shop board, and officiate as *tailors* and *shoemakers*, not only for themselves but for their schoolmates of the farm establishment. In this way, these ingenious striplings by exercising the functions of *Jack at all trades* materially curtail the expenses of the establishment.

The education of the Farm boys is not confined to the art of tillage and rural economy. Under the direction of Mr. Curtis, the boys daily attend the instruction of the school both morning and afternoon. They are there taught the elements of useful knowledge, reading, writing, arithmetic and geography, on this occasion, in mental arithmetic, geography, the rudiments of astronomy, &c. &c. were honorable to their diligence and capacity, as well as to the assiduity and qualifications of Mr. Curtis.

The following extract from a *Circular*, which has been forwarded to gentlemen, who have been, or we hope may be induced to lend a hand to the good work, ably developes the plan and progress of this most noble charity.

One hundred and eight boys, many of them orphans and children of widows, taken from idleness and profligacy in the streets, are there engaged in farming, gardening, or some useful trade, and acquiring a suitable education. A course of life which led to degradation and too often to crime is exchanged for one of industry, and the enjoyments to which it leads. Instead of criminals they are likely to become useful men, some of them, perhaps, to excel in virtue and intelligence, as they might have done in skill to defraud.

Addresses, happily adapted to the occasion, were made by Gen. Dearborn, Mr. Grant, and other gentlemen, and the company separated with gratified felings and invocations of good will towards this establishment. We understand that a handsome donation to this institution was presented by a gentleman present.

Side Hill Plough.

[FROM THE MAINE FARMER.]

MR. HOLMES:—I have for some time past felt desirous to call your attention and the attention of the agricultural community to the Side Hill Plough. There are several kinds of ploughs so called, but I mean that with a rolling share and mouldboard. You doubtless have seen them and perhaps know much better how to estimate their value than I—but what I have seen of them and the use I have made, and the experience of others much better qualified to judge of their worth than I, have convinced me that they ought to take the place of all other ploughs, as possessing all the good properties of the best cast iron ploughs, to which is to be added those of turning the furrow to either the right hand or the left.

They are not patented. They are manufactured by a Mr. Nourse of Worcester, Mass., and were introduced into this town by Samuel Davis, Esq.

There are now in, and within 2 or 3 miles of this village, two dozen or more of them in actual use, and I believe every man who has tried them is entirely satisfied with them, and has either gotten one for his own use, or is determined to have one the first opportunity.

They are not only applicable to the side hill, but equally so to level grounds, entirely superceding the necessity of a central or dead furrow. I have had my ploughing done for two years past with this kind of plough, and I do not hesitate to say that the ploughing has been as well done as it could have been done with any other plough in use.

I held the plough one half day to break up land that had been mowed about five years. One yoke of oxen was all the team necessary. The work was done with ease to the cattle, and the man who owned the cattle and who drove them for me, has since purchased one of the ploughs for his own use.

One of our citizens contracted to build, and built a new road of about one mile on the shore of a pond where he was under the necessity of ploughing upon one side of the road altogether—be purchased one of these ploughs on purpose, and now says, he more than cleared the price of it in the time of his team and hands which would otherwise have been spent in travelling without ploughing. Much more might be said in favor of these ploughs, but my only object is to call the attention of those farmers who are about purchasing ploughs to do their fall ploughing. To such I would say—don't purchase until you have seen and are satisfied. All that will be necessary to satisfy you will be to try, and I am certain you will buy.

They need no more recommendation in this vicinity—there will be very few other ploughs used in one or two more years.

Yours, very respectfully,

A FRIEND TO AGRICULTURE.

Mt. Vernon Village, Sept. 8, 1837.

Urate, or Manure from Urine.

[FROM THE NEW-YORK FARMER.]

We have been furnished with the following translation of a Report made in France, on the subject of Manure made from Urine, or the liquid parts of the contents of Sinks.

By this report it will be seen that *this* kind of manure is exceedingly valuable, and has been used to great advantage—yet it is not held in as high estimation as *Poudrette*, or the manure made by *evaporation*, from the more solid parts of the contents of sinks or privies. The value of Poudrette is well understood and appreciated in France, Germany and England, where it is extensively used, and even exported to the *West India Islands* with great advantage.

There cannot, we believe, be a question as to its superiority over any other manure, if it is not *detiorated* by the process of preparation; and so far as we are able to judge from the information in our possession, we have no doubt as to the facility with which it may be prepared without depreciation.

The following extract from the report above referred to, gives many interesting facts in relation to the mode of using, and quantity required on different soils, etc.

"Eight to nine bushels (or about 600 lbs.) are generally sufficient per *Arpent*—or French acre, which is equal to 1 acre, 1 quarter, and 2 square perches our measure,—upon artificial meadows, or upon grain after winter has passed, and in dry soils. In poor soils, it is necessary to increase the quantity to from 12½ to 17 bushels per *Arpent*, or to from 10 to 13 bushels to the acre our measure, when used on grain in the fall. In damp soils it has been used with success, at the rate of from 17 to 21 bushels for winter grain. On the fertile soils of La Beauce, it has been used with more success than plaster, upon artificial meadows, and only at the rate of 13 bushels per Arpent. In

the vallies of Labrie, from 17 to 21 bushels, and at Montereau and de Bray, from 8 to 10 bushels per Arpent are used. This manure may be dissolved in water, as its action is greater when it rains, soon after it has been spread. The time for using it, is indicated by the nature of the soil, and mode of culture. Upon such soils as do not retain water, it is better to spread it at the time of sowing. The moisture of the earth, and the rains of that season, hasten its solution, and the grain is better prepared to resist the effects of the winter. Nevertheless, if the sowing takes place a very short time previous to the setting in of the hard frosts, it would be better to omit spreading the manure until early in the spring. Grain treated in this way has given a produce very superior to that treated in a different manner; also, when the soil retains water during the winter, it is better to delay spreading the manure until spring, as without this precaution it would be too much diluted, except upon *early* sowing. In a wet season, more manure is required to be used in autumn, than in spring, upon the same quantity of ground. The use of this manure is very profitable upon spring wheat and other spring crops, if care is taken to spread it in damp or rainy weather.

When spread immediately after a heavy rain, its effects are almost instantaneous. During two years trial, its effects have been highly satisfactory. The following are the results.

The crops have been rendered stronger and heavier by its use, and come earlier to maturity, while the grain has been larger and better filled.

Oats have yielded double, and the grain very heavy.

The same results have been obtained with barley.

Buckwheat has produced 2 or 3 times its ordinary crop.

Potatoes have yielded twice as many tubers, which were much larger than usual, very mealy, and of exquisite flavor. The manure is applied by being mixed with pulverized soil, and put in the hill.

Turnips have been able, after its application, to resist the attack of the *tiquet*, (an insect which eats the first leaves of the turnip during the drought.

Beet roots obtained a circumference of 28 inches, were of a superior quality, and the leaves of unusual size. Upon the vine the trials have likewise been very successful, the vegetation has become active, the period of ripening advanced a fortnight, while the wine was of better quality, than that from the same sort of vine on the same ground, but which had not been thus manured.

For the culture of the vine, three different modes of manuring have been tried, viz.: Spreading it as in a corn-field, placing it at the foot of the vine, or by dissolving it in water, in the proportion of one pound to a gallon. This last mode has been found most successful. It has also been preferred to the other methods both for vegetables and fruit trees.

A great advantage of this manure is, that it does not, like most other manures, propagate weeds, as it is entirely free from seeds; and that it acts for two years at least upon the same ground without renewal. For grass and clover, it is superior to plaster, as it has never been found injurious to sheep and cattle."

On the Analysis of Soils, and of the Agricultural Relations between Soils and Plants.

[FROM THE HORTICULTURAL REGISTER.]

We have seen that the earths have a threefold capacity: that they receive and lodge the roots of plants and support their stems; that they absorb and hold air, water and mucilage—aliments necessary to vegetable life; and that they even yield a portion of themselves to these aliments. But we have also seen, that they are not equally adapted to these offices; that their parts, texture, and qualities are different; that they are cold or warm, wet or dry, porous or compact, barren or productive, in proportion as one or other may predominate in the soil; and that to fit them for discharging the various functions to which they are destined, each must contribute its share, and all be minutely divided and intimately fixed In this great work nature has performed her part; but as is usual with her, she has wisely and benevolently left something for man to do.

This necessary march of human industry, obviously begins by ascertaining the *nature of the soil.* But neither the touch, nor the eye, however practised or acute, can in all cases determine this. *Clay* when wet, is cold and tenacious—a description that belongs also to magnesian earths: *sand* and *gravel* are hard and granular; but so also are some of the modifications of lime; *vegetable mold* is black and friable, but not exclusively so: for schistous and carbonaceous earths have the same properties.

It is here, then, that chemistry offers herself to obviate difficulties, and remove doubts; but neither the apparatus nor the process of this science, are within the reach of all who are interested in the inquiry, and we accordingly subjoin a method, less comprehensive, but more simple, and sufficiently exact for agricultural purposes, and which calls only for two vases, a pair of scales, clean water, and a little sulphuric acid.

"1st. Take a small quantity of earth from different parts of the field, the soil of which you wish to ascertain, mix them well together, and weigh them; put them in an oven, heated for baking bread, and after they are dried, weigh them again; the difference will show the *absorbent power of the earth.* When the loss of weight in 400 grains amounts to 50, this power is great, and indicates the presence of much animal or vegetable matter; but when it does not exceed 20, the absorbent power is small, and the vegetable matter deficient.*

"2d. Put the dried mass into a vase with one-fourth of its own weight of clear water; mix them well together; pour off the dirty water into a second vase, and pour on as much clean water as before; stir the contents, and continue this process until the water poured off is as clear as that poured on the earth. What remains in the first employed vase, is *sand, silicious or calcarious.*

"3d. The dirty water, collected in the second, will form a deposit, which (after pouring off the water) must be dried, weighed, and *calcined.* On weighing it *after* this process, the quantity lost will show the portion of *animal* and *vegetable mold contained in the soil;* and

"4th. This calcined matter must then be carefully pulverized and

* See Davy's Elements.

weighed, as also the first deposit of sand, but without mixing them. To these, apply (separately) sulphuric acid, and what they respectively lose in weight, is the portion of *calcarious* or *aluminous earths* contained in them. These last may be separated from the mass by soap lye, which dissolves them."*

Here is the light we wanted. In knowing the disease, we find the cure. Clay and sand qualify each other; either of these will correct an excess of lime; and magnesian earth, when saturated with *carbonic acid*, becomes fertile.

But entirely to alter the constitution of a soil, whether by mechanical or other means, is a work of time, labor and expense, and little adapted to the pecuniary circumstances of farmers in general. Fortunately, a remedy, cheaper, more accessible and less difficult, is found in that *great diversity* of habits and character, which mark the vegetable races. We shall, therefore, in what remains of this section, indicate the principal of these, as furnishing the basis of all rational agriculture.

1st. Plants have different systems of roots, stems, and leaves, and adapt themselves according to different kinds of soil. The Tussilago prefers clay; the Spergula, sand; Asparagus will not flourish on a bed of granite; nor Muscus Islandicus on one of alluvion. It is obvious that *fibrous rooted* plants, which occupy only the surface of the earth, can subsist on comparatively stiff and compact soils, in which those of the leguminous and cruciform families would perish, from inability to penetrate and divide.

2d. Plants of the same or of a similar kind, do not follow each other advantageously in the same soil. Every careful observer must have seen how grasses alternate in meadows or pastures, where nature is left to herself. At one time timothy, at another clover, at a third red top, and at a fourth blue glass, prevails. The same remark applies to forest trees; the original growth of wood is rarely succeeded by a second of the same kind; pine is followed by oak, oak by chesnut, chesnut by hickory. A young apple tree will not live in the place where an old one has died; even the pear tree does not thrive in succession to an apple tree; but stone fruits will follow either with advantage. "In the Gautinois, (says Bosc) saffron is not resumed but after a lapse of twenty years; and in the Netherlands, flax and colzat require an interval of six years. Peas, when they follow beans, give a lighter crop than when they succeed plants of another family."†

3d. Vegetables, whether of the same family or not, having a similar structure of roots, should not succeed each other. It has been observed that trees suffer considerably by the neighborhood of sainfoin and lucerne, on account of the great depth to which the roots of these plants penetrate—whereas culmiferous grasses do them no harm.

4th. Annual or biennial trefoils prevent the escape of moisture from sandy and arid soils, and should constantly cover them in the absence of other plants;‡ while *drying and dividing crops*, as beans, cabba-

* This method of analyzing soils is that described by M. Bosc, member of the Institute of France, &c., and recommended to French agriculturists.

† The ill effects of a succession of crops of the same kind, was not unknown to the Romans. We have proof of this in the following passage of Festus: Restibilis ager fit qui continuo biennio seritur farreo spico, id est aristato, quod, ne fiat *solent, qui pradia locant, excipere.*

‡ The "Sterilis tellus media versatur in æstu," of Virgil, shows the opinon he entertained of a husbandry that left the fields without vegetation.

ges, chicory, &c. &c., are best fitted to correct the faults of stiff and wet clays.

5th. When plants are cultivated in rows or hills, and the ground between them is thoroughly worked, the earth is kept open, divided, and permeable to air, heat, and water, and accordingly receives from the atmosphere nearly as much alimentary provision as it gives to the plant. This principle is the basis of the drill husbandry.

6th. All plants permitted to go through the phases of vegetation, (and of course to give their seeds) exhaust the ground, in a greater or less degree; but if cut green, and before seeding, they take little from the principle of fertility.

7th. Plants are exhausters in proportion to the length of time they occupy the soil. Those of the culmiferous kinds, (wheat,* rye, &c.) do not ripen under ten months, and during this period, forbid the earth from being stirred; while, on the other hand, leguminous plants occupy it but six months, and permit frequent ploughings. This is one reason why culmiferous crops are greater exhausters than leguminous: another is, that the stems of culmiferous become hard and flinty, and their leaves dry and yellow, from the time of flowering till the ripening of the seed—losing their inhaling or absorbing qualities—circulating no juices, and living altogether in their roots, and on aliments exclusively derived from the earth; whereas leguminous or cruciferous plants, as cabbages, turnips, &c. &c., have succulent stems, and broad and porous leaves, and draw their principal nourishment from the atmosphere. The remains of culmiferous crops also are fewer, and less easily decomposed, than those of the leguminous family.

8th. Meadows, natural and artificial, yield the food necessary to cattle, and, in proportion as these are multiplied, manures are increased, and the soil made better. Another circumstance that recommends them is, that so long as they last, they exact but little labor, and leave the whole force of the farmer to be directed to his arable grounds.

9th. Grasses are either fibrous or tap-rooted, or both. The remarks already made, in articles 1, 2, and 3, apply also to them. Timothy, red top, oat grass, and rye grass, succeed best in stiff, wet soils. Sainfoin does well on soils the most bare, mountainous, and arid; lucerne and the trefoils, (or clovers) only attain the perfection of which they are susceptible, in warm, dry, calcarious earth.

10th. The ameliorating quality of tap-rooted plants is supposed to be in proportion to their natural duration; annual clover (lupinella) has less of this property than biennial, (Dutch clover) biennial less than sainfoin, and sainfoin less than lucerne.

11th. Any green crop ploughed into the soil, has an effect highly improving, but for this purpose, lupins and buckwheat, (cut when in flower) are most proper.

12th. Mixed crops (as Indian corn, pumpkins, and peas, and oats,) are much and profitably employed, and with less injury to the soil than either corn or oats alone.†

* Spring wheat and rye form exceptions to this rule, as they will mature in four months.—Ed. Far. & Gar.

† The good effect of these mixtures was known to the ancients, from whom the practice has descended to us. What a picture of fertility and abundance have we in the 22d chap. 18th book of Pliny's Natural History: "Sub vite seritur frumentum, mox legumen, deinde olus, omnia, eodem anno, omnia que aliena umbra aluntur."

Corn-stalk Fodder.

[FROM THE FARMER AND GARDENER.]

In the last number was given an account of feeding milch cows with steamed corn stalks:—and, it will be observed, that the quantity of food which kept the cows in good milking order, was very small when compared with what is usually consumed in dry fodder. We had fed both cows and horses, on stalks cut fine in the same way, but had given them in a dry state, for several years before the steam was adopted; but no comparison can be drawn, as to the saving of food by steaming from this trial, as the stalks had been given in waste. The mangers were filled, and when feeding time came, that which was not consumed, was thrown under them for a bedding, no economy being necessary, as the stalks were plenty.

During the first year of feeding stalks in this country, we did not think of giving them to the horses, not yet having learned their value; but on passing by the horse's stalls one day, with young Devon, some were thrown to the horses, which were standing to clover hay—they ate the stalks very heartily in preference, and from that time we have never fed a horse with hay.

One of the horses was driven into town twice every day; and that one had an allowance of grain. But the other two were only used occasionally, and had no grain, unless they were taken out to draw a load of wood, or were driven to town in a carriage, when in such cases they had a small allowance of grain given them. The quantity of stalks they ate cannot be estimated, as they were given to them as to the cows, without reserve. Our horses never wintered better, when fed on the best clover or timothy hay.

The man who attended to feeding was an experienced feeder from England, and consequently, was very much averse to the innovation of old customs, but before the spring, he became convinced of the value of this food, and reconciled to its use. About eight acres of corn, which produced from thirty-five to forty bushels of corn to the acre, furnished the stalks which were sufficient to keep ten milch cows, three horses, and one young heifer, for five months.

Our experience goes to confirm the idea, that the portion of corn-stalk which is below the ear, and is suffered to be lost, in the usual way of saving fodder, is of more value as food and manure, than the portion which is usually saved,—and that this portion, which is left standing, and is lost both as food and manure, is worth more, when properly used, than a crop of clover which the same ground would produce.

When it is taken into consideration the loss in the crop of corn by the present method of injudiciously mutilating the green stalk, which has been shown to amount to one-fifth of the whole crop of grain; and that the present practice involves a loss in the fodder which equals the whole produce of the land for one year when laid down in clover, it would be supposed this subject must recommend itself to the most inattentive farmer, if he has any regard to his own interest.

PART III.

MISCELLANEOUS INTELLIGENCE.

Receipt for Washing.—Take 12 ounces of soap, 4 ounces of salts of soda, and 1 table-spoonful of pearl-ash—dissolve them in 1 gallon of water, then add the whole when dissolved to 10 gallons water. Put the clothes to soak over night, wring them out that water the next morning—then put the cleanest of them in a kettle in which has been previously thrown the above mixture. Let them boil for one hour, then take them out and wash them through rain water. Rinse them in two waters—proceed thus till the whole are washed.

N. B.—This will wash 15 dozen.

To make fire and water-proof Cement.—To half a pint of of vinegar add the same quantity of milk; separate the curd, and mix the whey with the white of five eggs; beat it well together, and sift into it a sufficient quantity of of quick lime, to convert it to the consistency of a thick paste. Broken vessels, mended with this cement, never afterwards separate, for it resists the action both of fire and water.

Food for the Silk Worm.—Though the foliage of the mulberry is the natural food for the silk worm, and the only food from which they can make silk, yet there are various other plants, on the leaves of which they will feed and live.—The more common are the rose, lettuce, bramble, dandelion, hop, hemp and fig. It is also said they will feed upon the leaves of the currant. The worms may, therefore, be fed on these leaves, when the leaves of the mulberry cannot be had, for the purpose of keeping them alive until they can be procured. It is supposed there is a resinous matter in the leaves of the mulberry, which, undergoing a change in the stomach of the worm, enables it to make silk.—*Silk Culturist.*

Seed Cocoons.—In the selection of cocoons for seed, care should be taken that an equal number of males and females are preserved.

The sexes are distinguished by the external appearance of the cocoons. Those of the females are the largest and fullest in the middle, while those of the male are smaller, have a ring drawn tight in the middle, and have one, and sometimes both ends a little compressed. After they are selected they should be strung on separate threads, and care be taken that the needle do not penetrate too far in stringing. In about two weeks from the time of rising to spin, the moths will come out of the cocoons. This ordinarily happens in the morning, and the males and females should be kept separate an hour or two, after which they should be placed together in pairs on sheets of paper, and laid away in a dark room until the female has done laying her eggs. This will occupy several days.

It will be found convenient to have paper boxes, perforated with small air holes, in which to confine the males from the time of their coming out of the cocoons until the time of coupling them with the females. In a week or ten days after the eggs are laid upon the paper, the sheets should be folded up, packed away in a tight box, and deposited in a cold dry cellar, there to remain through the winter. The number of eggs laid by each moth is from three to five hundred.*—*Silk Grower.*

* The eggs may be kept from hatching in an ice-house, without endangering their vitality.

Diarrhœa or Scouring in Horses.—I lately had the care of a horse that was very ill with diarrhœa or scouring; and as the disease proved obstinate, it may be useful to others to know how we eventually succeeded. He had peen sick for ten or twelve days. His ears, nose, and legs became cold; and his owner expected him to die.

Castor oil, opium, brandy, and alkaline medicines were all exhibited by drenching, and some others by injection; but the disease continued attended with great thirst. Water was not allowed except when medicated: had it been, I think he must soon have died, for the symptoms were aggravated whenever he was indulged; but within a day or two after the following plan was *strictly adhered to*, he grew better:—*He was confined to the stable, covered with a blanket, and allowed nothing but hay. oats, and slippery elm drink.*

At first he had but very little appetite, and no relish for such drink; but when green food and cold water were withheld, *the occasional cause* of the disease was removed; and with his appetite, the natural heat returned.

In procuring elm bark, the dry rough part should be removed, as it renders the drink more unpalatable. A hat full is enough at one time. Put it into a pail, and pour on scalding water; stir it to diffuse the mucilage; and when cool enough, it may be set before the horse; but he will be in no hurry to drink it. The same bark will do for several times. This method is better than to make five pailsful at once in an iron kettle, as it would soon ferment in hot weather, and the metal impart a disagreeable taste.

On inquiry, I find that horses are not unfrequently lost in this disease; and a sense of duty has overcome my reluctance to hold the pen. Oxen are also occasionally seized with the same complaint. My next neighbor effected a cure the other day, by putting *dry flour in a bag, and boiling it thoroughly. When cold it was pulverized, and a quart given for a dose.* The ox is generally willing to take it, and one dose has proved sufficient.—A Farmer.—*Genesee Farmer.*

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Fattening Swine.—The Rev. Mr. Elliot observes as follows: "I find by experience the best time to fatten swine, is to begin the first of August, if you have all corn. Hogs will fatten *slowly* in cold weather; they will eat much and fatten little; if you make a very warm house, they will heat in bed, and catch cold when they come out into the cold air." Mr. Elliot is undoubtedly correct; and if a farmer has not old corn, he should have new peas fit for feeding by the first of September. If thrown to your swine when rather green, vines and all, there are few kinds of food more palatable to a pig, or which will give a finer beginning for the manufacture of heavy pork.—*Gen. Farmer.*

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A Cure for the Scouring in Calves.—Take a table-spoonful of finely powdered chalk, and a like quantity of ground ginger, put it in a bowl, pour boiling new milk on it, say half a pint, stir it well, and then give this dose about milk-warm, night and morning, to the calf, and in nine cases out of ten two doses will be sufficient to stop the disease.—*Farm. & Gard.*

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Tomato a substitute for Calomel.—We have been looking for this these two years past, and were wholly inclined to favor the announcement, when a few weeks since we saw advertised, "Miles' compound extract of Tomato." The tomato, used as an article of refection, is highly medical, and doubtless prevents many bilious attacks. We inferred from this fact the possibility of preparing from it a medicine of great virtue. Dr. Miles and his associates have spent years, and fortunes, we understand, in experimenting, and finally have produced the compound extract. It has been used by many, in the city and out of it, and is, as near as we can learn, generally approved. The following is taken from the advertisement and directions accompanying the boxes:

"Humane physicians deplore the sad evils resulting from the mercurial practice, and will gladly hail the introduction of an article that can safely be substituted for calomel. They *feel*, and that *keenly*, the great uncertainty of its primary operation; they cannot say whether it will be favorable or unfavorable. They also *know*, and feel, that if its use is continued for any considerable time, injurious secondary consequences must certainly follow. But they must choose the least of two evils; they know no other article that will arouse a *torpid liver*. remove obstruction, and set in free action the whole glandular system; and it being indispensably necessary to do this, they continue its use, notwithstanding the evil consequences which follow.

"They have long desired and sought an article that would produce the *good* effects of this drug, without subjecting the patient to its *deleterious* results. Such.

a desideratum, it is believed, has at length been obtained in the article now presented to the public.

"The proprietors of this article, keeping in view the fact, that a *wise* and *benevolent Being* has placed within the reach of all, remedies adapted to the diseases incident to the climate they inhabit; and knowing likewise, that most of the diseases of the *south* and *west* are based upon organic or functional derangement of the liver; directed their attention to those articles which act more especially on the biliary organs.

"After long, laborious, and expensive research, they have succeeded in extracting a substance from the *tomato*, which from its peculiar effect upon the hepatic or biliary organs, they have denominated *Hepatine*

"It is a medicine that will produce all the beneficial results of calomel, in both acute and chronic diseases, without the possibility of producing the deleterious consequences common to that article."—*West.* (*Cinn.*) *Chris. Adv*

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The Tomato.—As this is the season when this delicious and healthful vegetable is ripening and becoming fit for the table, a word to those who may be unacquainted with its highly valuable medicinal qualities, may be acceptable. In all complaints attended with torpor and inactivity of the liver and bowels, it is a speedy and sovereign remedy; for sick head-ache, do.; for dyspepsia it never fails. For all calculous complaints, and diseases of the kidney and urinary passages, it is worth more, and will do more good, than all other medicines put together, not excepting even Swaim's nostrum or Brandreth's *inert* pills. For scrofulous diseases generally of the glandular system, it is one of the best remedial agents that can be found, if not the very best. All diseases of an occult nature, requiring the aid of mercury in some form for their cure, will yield more readily to the free use of the tomato; and what is greatly in its favor, it does not, like mercury, ninety-nine times in a hundred, leave a more obstinate disease behind, and one more incurable than that sought to be removed. For the *modus operandi*, we must content ourselves by saying that the tomato acts as a detergent or wiper away, of crude and irritating humors floating in the system, and which frequently become entangled in the tortuous vessels of the glands, and there, if not removed, are sources of constant irritation and frequent disease. As a diuretic, it is not excelled by any known medicine; hence its efficacy in all dropsical affections. But time would fail me to enumerate all the diseases in which its virtues as a remedial agent have been tested. For the different modes of preparation for the table, and for preserving it through the winter, I must refer you to the Genesee Farmer.—*Lockport Democrat.*

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Packing Butter.—During the summer months, butter is usually lower in price than at other seasons of the year, and hence its preservation sweet and good when packed, may be an object in an economical point of view, at this pinching time of cash. Take a stone pot or jar that will hold 30 or 40 lbs., clean it thoroughly, and wash it in cold strong brine. Take of new sweet butter, well made, and free from buttermilk, (if enough to fill the pot at once, so much the better) work it well, and put a layer of it a few inches in thickness in the jar, beat it down solid with a wooden beater, turning off the milk that will escape occasionally, then repeat the process until the pot is filled within an inch and a half of the top, with butter thoroughly pounded down. On the top of this mass pour one inch of clean pure brine, made by dissolving salt in warm water until saturated, and then cooled. Over this lay a clean cloth, and if this is secured by a clean stone, it will be better than a board. Keep the jar at a low temperature, and the butter will keep good for an indefinite length of time, only examining it occasionally to see that it is covered with the brine, and renewing it if necessary. Last summer we put down some jars in this way, and they kept perfectly fine for winter use; and Judge Buel has preserved butter in this way for twenty months, in good condition. The only requisites appear to be pure sweet butter to pack, solidity in the mass by beating, total exclusion of the air by brine, and the lowest temperature possible.—*Gen. Farmer.*

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Agricultural Bounty.—The Legislature of Maine, at its last session, passed an act, giving a bounty of two dollars to every cultivator of the soil who will raise 20 bushels of wheat, and six cents each for every bushel over thirty. In speaking upon the subject and its results, the Boston Herald says:

"We understand, from a Maine gentleman, that the consequent excitement has been such, that there is every prospect of an immense crop. He states, that from calculation, the tax to the State, from this bounty, will not be far from *two hundred thousand dollars*."

Upon which the Philadelphia Saturday Courier makes the following sensible remarks:

"We never could discover the least reason—so long as a scarcity of breadstuffs, compared with the consumption, exists—that every Legislature in every State should not do the same thing. It is certain that something should be done to induce men to grow grain. Consumers require it—the present state of things show it. Let legislators think of it, and act accordingly."

We trust that our Legislature, at its next session, will bear the above in mind, and, instead of from fifty to a hundred *divorce bills*, pass a similar act; the benefits that will speedily flow from it, not only to individuals, but to the State at large, will be almost incalculable.—*Franklin Farmer.*

[We fully concur in the views expressed by the Philadelphia Saturday Courier. It is the true application of the principle of protection to domestic manufactures, and of labor in all its varied departments. However much we may disagree, as to the right of the General Government to impose duties for the encouragement of domestic industry, none will question the power and right of the STATES to stimulate the enterprise of their own citizens, by bounties upon specific articles, produced within their borders and sold in open market, whether for export or consumption within their respective limits. We shall rejoice to see the day when, under the auspices of the Legislature of *this State*, agricultural capital will be found invested in the production of Wheat, Hay, &c. When we reflect upon our total dedendence upon other States for many of the prime necessaries of life, we cannot but feel an apathy has crept over the land, as discreditable to our enterprise and economy, as it is pernicious to our habits. Let the Legislature give such a bounty as will enable our own farmers to compete with those of the North—let our people patriotically give their *practical* preference to the manufactures and productions of their own people, and soil—and in a very few years the bounty can be dispensed with—new and better habits will obtain among our people—and the sums now annually, and to a great amount, expended for the productions of other (and in this respect foreign) States, being retained at home, will place Carolina industry on a basis of permanency and prosperity heretofore unknown. We do not mean to be sectional—we but indicate the duty of each State, and shall not complain if the application be against our own. The times call upon us imperiously to diminish our disbursements, increase home productions, and employ our own people.—*Ed. So. Agr.*]

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Remember this—or Cross-ploughing upon Unfermented Vegetable Manures.—Unfermented vegetable and animal matter, including green sward, green crops, and long manure, after being buried by the plough, should never be exposed to the sun and winds by cross-ploughing, until they have become perfectly rotten. The gaseous matters which dung gives off while undergoing fermentation, always rise, because they are lighter than atmospheric air. They enrich the soil and afford food for plants, because they have already formed a necessary part of plants. Hence, if fermentation takes place *on* the surface, these gaseous matters are scattered and lost; if *in* the soil, the earths and moisture retain them there, and the plants feed upon them—*Cultivator.*

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New kind of Bread.—A correspondent of the Hingham Gazette, gives the following directions for making a new kind of bread.

Take one quart of the best flour, and put it into a tin pail which has a tight cover. Put into this flour, one tea-spoonful of salt and one tea-spoonful of salæratus, both pulverized. Stir them in well. Then pour upon the flour quite warm new milk; pour by degrees, (stirring as you pour to prevent lumping) until you have poured a quart. Put on the cover, and set the pail on very warm iron, or hang it up high, over a slow fire, or which is better still, put it into a common tin baker, and set it up to a moderate fire, where the bottom of the pail can be so warm that you can hold your hand upon it without burning you. If it is hotter than this, the mixture inside, (which will be rather a thin paste) will bake and stick to the pail, which will ruin the experiment. Let the pail stand undisturbed in this steady heat, for five or six hours, when it will be found to rise, rather suddenly, to double its first size. As soon as it is thus risen, turn it and knead it up in the common way, and to the common thickness. Then put this dough into the tin pans, in which you intend to bake it; but fill the pans only half full of the dough. Then set these pans near a gentle fire, or in a July hot-sun out-doors, covered with a cloth. In an hour or more, the dough will begin to rise, and soon fill the pans. As soon as this is so, put it into the oven and bake one hour, i. e. if the loaf be twelve inches long, six thick. If it be half this size, a shorter time will suffice. Invalids can eat this bread with perfect safety.